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<210> 3847

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3847

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1320

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<210> 3848
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3848
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 Asn Met Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala
 35 40 45
 Met Asp Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala
 50 55 60
 Lys Arg Leu Pro Cys Asn His Ile Phe His Thr Arg Trp Glu Gly Pro
 65 70 75 80
 Trp Gly Ala Cys Pro Ala Gly Pro Arg Pro Gln Lys Ala Gly Pro Lys
 85 90 95
 Gly Pro Ala Asp Leu Cys Leu Ala Leu Thr Arg Ser Cys Leu Arg Ser
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 Trp Phe Gln Arg Gln Gln Thr Cys
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<210> 3849
 <211> 1139
 <212> DNA
 <213> Homo sapiens

<400> 3849
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 240
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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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 20 25 30
 Phe Pro Phe Asn Gln Trp Gly Leu Gln Pro Arg Ser Leu Leu Leu Gln
 35 40 45
 Ala Ala Arg Gly Tyr Val Val Arg Lys Pro Ala Gln Ser Arg Leu Asp
 50 55 60
 Asp Asp Pro Pro Pro Ser Thr Leu Leu Lys Asp Tyr Gln Asn Val Pro
 65 70 75 80
 Gly Ile Glu Lys Val Asp Asp Val Val Lys Arg Leu Leu Ser Leu Glu
 85 90 95
 Met Ala Asn Lys Lys Glu Met Leu Lys Ile Lys Gln Glu Gln Phe Met
 100 105 110
 Lys Lys Ile Val Ala Asn Pro Glu Asp Thr Arg Ser Leu Glu Ala Arg
 115 120 125
 Ile Ile Ala Leu Ser Val Lys Ile Arg Ser Tyr Glu Gln His Leu Glu
 130 135 140
 Lys His Arg Lys Asp Lys Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile
 145 150 155 160
 Asp Gln Arg Lys Lys Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp
 165 170 175
 Val Phe Glu Lys Ile Cys Trp Gly Leu Gly Ile Glu Tyr Thr Phe Pro

	180		185		190
Pro	Leu	Tyr	Tyr	Arg	Arg
	195			200	
Leu	Cys	Ile	Arg	Val	Phe
	210			215	
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Asn	Pro	Asp	Ser	Pro	Ala
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					255

Gln

<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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780
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1080

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 1183

<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
		35					40					45			
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55					60				
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln	
65					70				75				80		
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
			85					90					95		
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
		100					105						110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
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Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
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Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
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Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
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Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
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Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys
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Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
			245						250				255		
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro
	260							265					270		
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu
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Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
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Leu	His	Ala													

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 3853
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 180
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 375

<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 3854
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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
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<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

<400> 3855
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 420
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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5

10

15

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20

25

30

Ala Tyr Pro Thr Ala Phe Ala Ser Gln Asn Cys Gly Ser Gly Val Val

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Val Phe Cys Tyr Arg Met Lys Asp Val Asn Cys Thr Cys Lys Val Gly
 65              70              75              80
Tyr Val Gly Asp Gly Phe Ser Cys Ser Gly Asn Leu Leu Gln Val Leu
      85              90              95
Met Ser Phe Pro Ser Leu Thr Asn Phe Leu Thr Glu Val Leu Ala Tyr
      100              105              110
Ser Asn Ser Ser Ala Arg Gly Arg Ala Phe Leu Glu His Leu Thr Asp
      115              120              125
Leu Ser Ile Arg Gly Thr Leu Phe Val Pro Gln Asn Ser Gly Leu Gly
      130              135              140
Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu His His Leu Ala Asn
      145              150              155              160
Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn Gly Thr Xaa Pro Ala
      165              170              175
Asn Glu Gly Gly Lys Gln Ala Ala His His Cys Gln Pro Gly Pro Thr
      180              185              190
Xaa Gln Pro Thr Glu Thr Arg Phe Val Asp Gly Arg Ala Ile Leu Gln
      195              200              205
Trp Asp Ile Phe Ala Ser Asn Gly Ile Ile His Val Ile Ser Arg Pro
      210              215              220
Leu Lys Ala Pro Pro Ala Pro Val Thr Leu Thr His Thr Gly Leu Gly
      225              230              235              240
Ala Gly Ile Phe Phe Ala Ile Ile Leu Val Thr Gly Ala Val Ala Leu
      245              250              255
Ala Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Arg Thr Ile Gly Phe Gln
      260              265              270
His Phe Glu Ser Glu Glu Asp Ile Asn Val Ala Ala Leu Gly Lys Gln
      275              280              285
Gln Pro Glu Asn Ile Ser Asn Pro Leu Tyr Glu Ser Thr Thr Ser Ala
      290              295              300
Pro Pro Glu Pro Ser Tyr Asp Pro Phe Thr Asp Ser Glu Glu Arg Gln
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Leu Glu Gly Asn Asp Pro Leu Arg Thr Leu
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<210> 3857

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3857

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 420
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 480
 aatcgccctt tgctctctcg tcggagcact cctcggagaa cgggagcttg cgcttctcca
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<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

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			20						25					30	
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
			35						40				45		
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
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65					70					75					

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
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 240
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 300
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 360

cctaagcgaa tagcacaaac acagccagct gaatacaaca ccatcagtag gataactgca
 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaaatta ttgcaccttc accagtaaaa
 480
 agctttaaga aagcaaaaga tgaataatagc cctgataccc aaagaagcaa atctcatgca
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<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

Tyr Lys Asn Lys Lys Gln Val Gly Lys Tyr Phe Trp Pro Arg Ile Thr
 1 5 10 15
 Lys Val His Phe Lys Glu Thr Gln Phe Glu Leu Arg Val Leu Gly Lys
 20 25 30
 Asp Cys Asn Glu Thr Ser Phe Phe Phe Glu Ala Arg Ser Lys Thr Ala
 35 40 45
 Cys Lys His Leu Trp Lys Cys Ser Val Glu His His Thr Phe Phe Arg
 50 55 60
 Met Pro Glu Asn Glu Ser Asn Ser Leu Ser Arg Lys Leu Ser Lys Phe

```

65              70              75              80
Gly Ser Ile Arg Tyr Lys His Arg Tyr Ser Gly Arg Thr Ala Leu Gln
      85              90              95
Met Ser Arg Asp Leu Ser Ile Gln Leu Pro Arg Pro Asp Gln Asn Val
      100             105             110
Thr Arg Ser Arg Ser Lys Thr Tyr Pro Lys Arg Ile Ala Gln Thr Gln
      115             120             125
Pro Ala Glu Ser Asn Thr Ile Ser Arg Ile Thr Ala Asn Met Glu Asn
      130             135             140
Gly Glu Asn Glu Gly Thr Ile Lys Ile Ile Ala Pro Ser Pro Val Lys
      145             150             155             160
Ser Phe Lys Lys Ala Lys Asn Glu Asn Ser Pro Asp Thr Gln Arg Ser
      165             170             175
Lys Ser His Ala Pro Trp Glu Glu Asn Gly Pro Gln Ser Gly Leu Tyr
      180             185             190
Asn Ser Pro Ser Asp Arg Thr Lys Ser Pro Lys Phe Pro Tyr Thr Arg
      195             200             205
Arg Arg Asn Pro Ser Cys Gly Ser Asp Asn Asp Ser Val Gln Pro Val
      210             215             220
Arg Arg Arg Lys Ala His Asn Ser Gly Glu Asp Ser Asp Leu Lys Gln
      225             230             235             240
Arg Arg Arg Ser Arg Ser Arg Cys Asn Thr Ser Ser Gly Ser Glu Ser
      245             250             255
Glu Asn Ser Asn Arg Glu His Arg Lys Lys Arg Asn Arg Ile Arg Gln
      260             265             270
Glu Asn Asp Met Val Asp Ser Ala Pro Gln Trp Glu Ala Val Leu Arg
      275             280             285
Arg Gln Lys Glu Lys Asn Gln Ala Asp Pro Asn Asn Arg Arg Ser Arg
      290             295             300
His Arg Ser Arg Ser Arg Ser Pro Asp Ile Gln Ala Lys Glu Glu Leu
      305             310             315             320
Trp Lys His Ile Gln Lys Glu Leu Val Asp Pro Ser Gly Leu Ser Glu
      325             330             335
Glu Gln Leu Lys Glu Ile Pro Tyr Thr Lys Ile Glu
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<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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120
ggagaggggc gctactccaa ggtgaaggtg gccacatcca agaagtacaa gggtagcgtg
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240
cgagagctgt ccatcctgcg gggcgtgcga caccgcaca tcgtgcacgt ctctcagttc
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atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggcgcgccac cgacctgctg
360

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caagccgtgc agcgcaacgg gcgcaccccc ggagttcagg cgcgcgacct ctttgcgag
 420
 atcgccggcg cgtgcgcta cctgcacgat catcacctgg tgcaccgcga cctcaagtgc
 480
 gaaaacgtgc tgctgagccc ggacgagcgc cgcgtcaagc tcaccgactt cggttcggc
 540
 cgccaggccc atggetaccc agacctgagc accacctact gcggctcagc cgtacgcgtc
 600
 accogagtca tgcatttttt gagcacctac tgtctgccag gccccagagc tcatggcgaa
 660
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

Met Ser Gly Asp Lys Leu Leu Ser Glu Leu Gly Tyr Lys Leu Gly Arg
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 20 25 30
 Lys Tyr Lys Gly Thr Val Ala Ile Lys Val Val Asp Arg Arg Arg Ala
 35 40 45
 Pro Pro Asp Phe Val Asn Lys Phe Leu Pro Arg Glu Leu Ser Ile Leu
 50 55 60
 Arg Gly Val Arg His Pro His Ile Val His Val Phe Glu Phe Ile Glu
 65 70 75 80
 Val Cys Asn Gly Lys Leu Tyr Ile Val Met Glu Ala Ala Thr Asp
 85 90 95
 Leu Leu Gln Ala Val Gln Arg Asn Gly Arg Ile Pro Gly Val Gln Ala
 100 105 110
 Arg Asp Leu Phe Ala Gln Ile Ala Gly Ala Val Arg Tyr Leu His Asp
 115 120 125
 His His Leu Val His Arg Asp Leu Lys Cys Glu Asn Val Leu Leu Ser
 130 135 140
 Pro Asp Glu Arg Arg Val Lys Leu Thr Asp Phe Gly Phe Gly Arg Gln
 145 150 155 160
 Ala His Gly Tyr Pro Asp Leu Ser Thr Thr Tyr Cys Gly Ser Ala Val
 165 170 175
 Arg Val Thr Arg Val Met His Phe Leu Ser Thr Tyr Cys Leu Pro Gly
 180 185 190
 Pro Arg Ala His Gly Glu Glu Thr Trp Ala His Pro Cys Arg Lys Arg
 195 200 205
 Asp Asn
 210

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863
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 120
 agttttgtct tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcaggttc
 180
 ttctgtgtga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctgcagt
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
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<210> 3864
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 3864
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 20 25 30
 Leu Gly Cys Gln Pro Met Ala Arg Trp Phe Ser Gly Ser Leu Asp Gln
 35 40 45
 Lys Asn Leu Val Glu Ile Ser His Thr Val Phe Phe Pro Glu Ser Gln
 50 55 60
 Leu Arg Ala Lys Leu Lys Cys Pro Gly Gly Ser Cys Thr Pro Gly Leu
 65 70 75 80
 Lys Lys Ile Gly Ser Leu Lys Val Ser Cys Glu Glu Phe Leu Leu Met
 85 90 95
 Gly Leu Arg Tyr Gln His Leu Asp Pro Pro Ser Arg
 100 105

<210> 3865
 <211> 492
 <212> DNA
 <213> Homo sapiens

<400> 3865
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 120
 gagacctatg tgaagccac ttaattttct gaaacttcac atcatgtacc ttcatgttaa
 180
 tattctgaca ctgtttcat gcagccatac cagtcaaac tttaaatttt tagtcagact
 240
 ttgctcaca ggtttcagga taattaatac aaatgggttg ggccagccat cacacagcag
 300
 tctctattt acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtagggc
 420
 gggagcagcg gctcaccctt gtaatcccag ctttttggga ggccaaagca gacagatcac
 480
 tcaaggctcag ca
 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 1 5 10 15
 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg
 20 25 30
 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaaggagg ctctgattga ggagctctta
 180
 caggcaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg
 240
 agaaagcgag agcgtgaact caccgccttg aaggaggccc tgaaagaaga ggtttccagc
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccctgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacattca
 420
 gagcaagacc agcgggggac tgaaatgcgc gtgaagcttc tgcaggagga gaatgagaag
 480
 ctgcagggaa gaagcgaaga gctggagcgg agagtgtctc agcttcaaaag gcagatcgag
 540
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggagggcct tgtgcacgcc agaaggaag aaaaagaagc tgtgtcagcc
 660
 agaagggccc tggagaatga actggagget gctcagggaa atctgagtca gactaccag
 720
 ggcagaagc agttgtctga gaagctcaaa gaggagagtg agcagaagga gcagctaaga
 780
 aggttgaaaga acgagatgga gaatgagcgg tggcacctgg gcaaaacat tgagaaactg
 840
 cagaaggaga tggcagacat tgttgaggcc tcccgtaacct caaccctgga gctccagaac
 900
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg
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 1020
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

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			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
	50				55					60					
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65				70					75				80		
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
			85					90					95		
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
		100					105						110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
	115					120					125				
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
	130				135					140					
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145				150					155				160		
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Val	Ala	Gln	Leu	Gln	
			165					170				175			
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
	180						185					190			
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
	195					200					205				
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
	210				215					220					
Glu	Asn	Glu	Leu	Glu	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln	
225				230				235					240		
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

	245		250		255
Glu Gln Leu Arg Arg Leu Lys Asn Glu Met Glu Asn Glu Arg Trp His					
	260		265		270
Leu Gly Lys Thr Ile Glu Lys Leu Gln Lys Glu Met Ala Asp Ile Val					
	275		280		285
Glu Ala Ser Arg Thr Ser Thr Leu Glu Leu Gln Asn Gln Leu Asp Glu					
	290		295		300
Tyr Lys Glu Lys Asn Arg Arg Glu Leu Ala Glu Met Gln Arg Gln Leu					
	305		310		315
Lys Glu Lys Thr Leu Glu Ala Glu Lys Ser Arg Leu Thr Ala Met Lys					
	325		330		335
Met Gln Asp Glu Met Arg Leu Met					
	340				

<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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120
tgatgcacac acattccaga aatgcagagg tatgctgctg ccacggggta ggggtgcggg
180
aggcggcctg gcctcatggc cgcagaccgt gccccagccc gggcctggca ggtagctggc
240
cactgataaa tgccactggg atcctaggag aagctgggga ccatgctgta ggtactgaag
300
gggaccatgg tggatggcat cctgggcact ttgtagcttg tctgagggaa aggcctctgc
360
tgccatagaa aagctggaca catgtcacc tggggccctg acatcctaaa atgccccact
420
gactaccagt cactaggaga aaggtctccg gctatgcctt tcccagtgat gcttgccccca
480
gagtgactgg tcacaggctg gggacaggtt tgctccagaa accgtaggcc tttcttgtct
540
ggccccctaa agaggaccca agatcaggaa aactccccag tttaaaaaaa tatctgtcca
600
tctgtatata aaataacctat tattagctgg agttgcacac atgcaggacc aggagagact
660
gcctgagggt ctgcctggac cgaaggaggc ctgcctcaca gcacctctgt gaggggactg
720
gtgtcctctg gaagtcactt ctcttggtga cagagctgac accccctcca ctggaaagc
780
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840
gggccttctg ggccctcagca gctccagccc actcctggcc tggcaggcca cctgcccccc
900
caccacccca tctgcctctg gcccccagtg aagtcagaag aggcaggagc cccgcaggct
960
gtgagcctgg cgcaggtcgg ctgacagcga gctctctatc tgcctgggtg tagagcggac
1020

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gctctcgcca gectgcacgg cccggctcag ggcttctgtg agctectcta ggtcgccag
 1080
 gtcgagctgg atggagtgcc ggtgtctccg ggctgggtggg ggagaggctg tgggcggcca
 1140
 cttggcagct ggttgggctg aggtaggctc tgcaggcgca tagtacacag cggcaggtgg
 1200
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 1226

<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

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 Ala Ile His His Gly Pro Leu Gln Tyr Leu Thr His Gly Pro Gln Leu
 20 25 30
 Leu Leu Gly Ser Gln Trp His Leu Ser Val Ala Ser Tyr Leu Pro Gly
 35 40 45
 Pro Gly Trp Gly Thr Val Cys Gly His Glu Ala Arg Pro Pro Ala
 50 55 60
 Pro Leu Pro Arg Gly Ser Ser Ile Pro Leu His Phe Trp Asn Val Cys
 65 70 75 80
 Ala Ser Met Met Phe Val Tyr Leu Arg His Leu Lys Ile Tyr Phe Arg
 85 90 95
 Tyr Glu Gly Lys
 100

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 120
 tgggatgggtt gagttgacag ctctgaatcc cagaaacott aattttggct tatcttttga
 180
 taggctgagg gaaaatacaa agatgatcct gttgatctcc gccttgatat tgaacgtcgt
 240
 aaaaaacata aggagagaga tcttaaacga ggtaaatoga gagaatcagt ggattcccga
 300
 gactccagtc actcaaggga aaggtcagct gaaaaaacag agaaaaatca taaaggatca
 360
 aagaacacaga agaaagacct ctgagagccg agacaagctg ggagcgaaaag gagatttttc
 420
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 473

<210> 3872

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3872

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Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp Ile
 1           5           10           15
Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys Ser
 20           25           30
Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35           40           45
Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50           55           60
Asp Leu
65

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<210> 3873

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3873

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 60
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120
aggaggcaga agtctgtccga ggccctctgt cagtcccccgc agcgtccgtt ggaactccatc
180
agccaagagat cctccacttc cagcttcttc tccatgtcag ccggtctcaag gcaggaggag
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300
gaaatggtgc gttacctgtt ggaatggaca gaggaggacc tggaggatgc ggaggacact
360
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420
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540
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600
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660
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720
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780
ggcaacacag cgctgcacga ggctgtgatt gaaaagcacg tcttcgtggt agagctgctt
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869

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<210> 3874

<211> 289

<212> PRT

<213> Homo sapiens

<400> 3874

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Asp Ile Ala Ala Glu Arg Ser Val His Arg Asp Pro Glu Gln Thr Glu
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Gly Asp Pro Leu Lys Cys Ala Leu Asn Ser Lys Ile Leu Ser Val Met
 20           25           30
Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
 35           40           45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
 50           55           60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
 65           70           75
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
 85           90           95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
100           105           110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
115           120           125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
130           135           140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145           150           155
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
165           170           175
Leu Ile Arg Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
180           185           190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
195           200           205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
210           215           220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225           230           235
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
245           250           255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
260           265           270
His Val Phe Val Val Glu Leu Leu Leu His Gly Ala Ser Val Arg
275           280           285
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<210> 3875

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 3875

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120

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180
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600
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660
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720
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840
tacgagcgct ccttctctcg tagtttccac aggtggatcg agcgggtggt cggctggctc
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960
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1080
ctcaagtact gcctggagag gacggaccag aggcagcagc tgctcgtgct cctcaaggct
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1380
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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg	Gly
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His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu	Gln
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Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu	Leu
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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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 65 70 75 80
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 Asp Ser Cys His Ser Thr Thr Lys Thr Glu Ala Ser Gln Glu Glu Arg
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 Ser Asp Ser Ser Gly Leu Thr Ser Leu Lys Lys Ser Pro Lys Val Ser
 115 120 125
 Ser Lys Asp Thr Arg Glu Ile Lys Thr Asp Phe Ser Leu Ser Ile Ser
 130 135 140
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 Lys Lys Leu Val His Asn Ala Leu Ala Asn Leu Asp Gly His Pro Glu

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Glu Glu Thr Ser Thr Gln Glu Gln Ser His Pro Gly Glu Glu Trp Val		
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225	230	235
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<210> 3879

<211> 2769

<212> DNA

<213> Homo sapiens

<400> 3879

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<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

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			20					25					30		
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
		35				40					45				
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
		50				55					60				
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
					70					75				80	
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
				85				90					95		
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
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<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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<210> 3882

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3882

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 50 55 60
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 100 105 110
 Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met
 115 120 125
 Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser
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 Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser
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 Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly
 180 185 190
 Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg
 195 200 205
 Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp
 210 215 220
 Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly
 225 230 235 240
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<210> 3883

<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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<210> 3884

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3884

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			20					25					30		
Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			35				40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			50			55				60					
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<212> DNA

<213> Homo sapiens

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Thr Ala Ala Lys Phe Lys Leu Thr Arg His Gln Ala Val Thr Gly Ser
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<213> Homo sapiens

<400> 3888

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705          710          715
Lys Val Tyr Pro Ser Ser Leu Ser Lys Ile Ser Gly Ser Ile Leu Asn
725          730          735
Glu Leu Ile Gly Leu Val Arg Ser Pro Leu Leu Gln Gly Gly Ala Leu
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840

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<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
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His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
				70						75				80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
				85				90					95		
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100					105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115						120				125			
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Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr		
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<210> 3893

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 3893

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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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		20						25				30			
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35						40				45			
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	50					55				60					
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65				70					75					80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
			85						90				95		
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
	100						105					110			
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
	115					120					125				
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	130				135					140					
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145				150					155					160	
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			165						170				175		
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	180						185						190		
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	210					215					220				
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225				230					235					240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
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Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

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Gly Ser Leu Leu Ser Pro Leu Leu Glu Lys Pro Pro Pro Ser Trp Ser
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      290                295                300
Thr Ile Asp Thr Val Ser Val Pro Tyr Val Phe Arg Tyr Phe Val Ala
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<210> 3895
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<212> DNA
<213> Homo sapiens

<400> 3895
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240
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1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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		20						25					30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
		35					40					45			
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
	50					55				60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70					75					80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
			85					90				95			
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
			100				105					110			
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
		115				120						125			
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
		130			135					140					
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys	Asn	Arg
145				150						155				160	
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln	Asp	Pro
			165					170					175		
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
		180					185						190		
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
		195					200					205			
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser	Gly	Asp
		210			215					220					
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile	Ala	Ser
225				230					235					240	
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			245					250					255		
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu	Thr	His
		260				265						270			
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn	Gly
		275				280						285			
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
	290				295					300					
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
				310					315					320	
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
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 Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
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 Pro Pro Glu Thr Phe Leu Glu Ile Ser Lys Cys Asn Ser Arg Ser
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<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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 35 40 45
 Arg Pro Ser Leu Gly Arg Val Leu Pro Gly Ser Ser Val Leu Phe Leu
 50 55 60
 Cys Asp Met Gln Glu Lys Phe Arg His Asn Ile Ala Tyr Phe Pro Gln
 65 70 75 80
 Ile Val Ser Val Ala Ala Arg Met Leu Lys Val Ala Arg Leu Leu Glu
 85 90 95
 Val Pro Val Met Leu Thr Glu Gln Tyr Pro Gln Gly Leu Gly Pro Thr

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      130              135              140
Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
      145              150              155              160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
      165              170              175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
      180              185              190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
      195              200              205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210              215              220
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20				25						30	Val
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala
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Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile
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Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Phe
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Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val
							85				90			95
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu
			100				105						110	Glu
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg
			115				120					125		Ile
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu
			130				135					140		Gly
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr
145						150				155				160
Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val
			165							170				175
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe
			180					185					190	Tyr
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Ala	Val	Ile	Ile	Met	Ala	Val
			195				200					205		Ala
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys
			210			215					220			Arg
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp
225					230					235				240
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met
														Leu

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                245                250                255
Leu His Ser Ala Ala Arg Pro Glu Thr Lys Val Ser Glu Gly Pro Val
                260                265                270
Leu Val Leu Gln Pro Ala Ser Gly Leu Ser Phe Pro Val Leu Cys Pro
                275                280                285
Pro Leu Pro Ala Val Gln Asp Pro Lys Thr Leu Ser Pro Thr Leu Ser
                290                295                300
Ser Pro Gln Gly Cys Arg His Leu
305                310

<210> 3903
<211> 598
<212> DNA
<213> Homo sapiens

<400> 3903
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gccagtctgg cctcggtgcg ggcctttgcc actgcctttc tgagctctga gccacggttg
180
gacatcctca tccacaatgc cggatcagc tctctgtggc ggaccctgta ggcgtttaac
240
ctgctgtctc ggggtgaacca tatcggtccc tttctgtgta cacatctgct gctgccttgc
300
ctgaaggcat gtgccctag ccgctgggtg gtggtagcct cagctgccca ctgtcgggga
360
cgtcttgact tcaaacgcct ggaccgcccc gtggtgctgg cggcaggagc tgcggcatat
420
gctgacacta agctgggtaa tgtactgttt gcccgggagc tcgccaaaca gcttgaggcc
480
actggcgctc cctgctatgc agccccacca gggcctgtga actcggagct gttcctgcgc
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598

<210> 3904
<211> 199
<212> PRT
<213> Homo sapiens

<400> 3904
Ala Arg Arg Gly Ala Arg Val Val Leu Ala Cys Arg Ser Gln Glu Arg
1 5 10 15
Gly Glu Ala Ala Ala Phe Asp Leu Arg Gln Glu Ser Gly Asn Asn Glu
20 25 30
Val Ile Phe Met Ala Leu Asp Leu Ala Ser Leu Ala Ser Val Arg Ala
35 40 45
Phe Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile
50 55 60
His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe Asn
65 70 75 80
Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr His Leu

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      85              90              95
Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
      100              105              110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
      115              120              125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
      145              150              155
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
      165              170              175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
      180              185              190
Leu Ala Trp Leu Val Pro Arg
      195

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```

<210> 3905
<211> 370
<212> DNA
<213> Homo sapiens

```

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<400> 3905
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120
gccacccggcc agtttcgctg ccgcgtgccc ggccgctact tcttctcctt cacggtgctgc
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370

```

```

<210> 3906
<211> 123
<212> PRT
<213> Homo sapiens

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Gly Ser Ser Glu Leu Arg Ser Ala Phe Ser Ala Ala Arg Thr Thr Pro
1      5      10      15
Leu Glu Gly Thr Ser Glu Met Ala Val Thr Phe Asp Lys Val Tyr Val
20     25     30
Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
35     40     45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
50     55     60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65     70     75     80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

```

	85		90		95
Gln Ser Ala Met Leu Gln Leu Asp Tyr Gly Asp Thr Val Trp Leu Arg					
	100		105		110
Leu His Gly Ala Pro Gln Tyr Ala Leu Gly Ala					
	115		120		

<210> 3907
 <211> 4474
 <212> DNA
 <213> Homo sapiens

<400> 3907
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 ccacaaagag ctgccaagat agctggggcca ggaagaaagc gccgcagccc tgaccagac
 180
 gctgttgcgg accccggggc actctggctg tcgaccaagc ggctcaagat gtctggcggg
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 300
 aagcagaagg atcgagcaaa ccaggagagc aaggatggag atcctaggaa agagacaggg
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4474

<210> 3908

<211> 1373

<212> PRT

<213> Homo sapiens

<400> 3908

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Trp Pro Gln Arg Ala Ala Lys Ile Ala Gly Pro Gly Arg Lys Arg Arg
 20          25          30
Ser Pro Asp Pro Asp Ala Val Ala Asp Pro Gly Ala Leu Trp Leu Ser
 35          40          45
Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg
 50          55          60
Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys
 65          70          75          80
Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Gly Thr
 85          90          95
Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly
100          105          110
Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg
115          120          125
His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr
130          135          140
Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp
145          150          155          160
Leu Leu Ala Thr Pro Thr Pro Glu Leu Leu Asp Trp Arg Gln Ser
165          170          175
Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln
180          185          190
Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg
195          200          205
Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys
210          215          220
Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu
225          230          235          240
Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val
245          250          255
Glu Ala Asp Glu Gln Leu Cys Ile Pro Pro Leu Asn Ser Gln Thr Cys
260          265          270
Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala
275          280          285
Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg
290          295          300
Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala
305          310          315          320
Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn
325          330          335
Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val
340          345          350
Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val
355          360          365
Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

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370          375          380
Asn Phe Leu Arg Leu His Pro Gly Cys Gly Pro His Thr Thr Phe Arg
385          390          395          400
Trp Gln Val Lys Leu Arg Asn Leu Ile Glu Pro Glu Gln Cys Thr Phe
          405          415
Cys Phe Thr Ala Ser Arg Ile Asp Ile Cys Leu Arg Lys Arg Gln Ser
          420          425          430
Gln Arg Trp Gly Gly Leu Glu Ala Pro Ala Ala Arg Val Gly Gly Ala
          435          440          445
Lys Val Ala Val Pro Thr Gly Pro Thr Pro Leu Asp Ser Thr Pro Pro
          450          455          460
Gly Gly Ala Pro His Pro Leu Thr Gly Gln Glu Glu Ala Arg Ala Val
          465          470          475          480
Glu Lys Asp Lys Ser Lys Ala Arg Ser Glu Asp Thr Gly Leu Asp Ser
          485          490          495
Val Ala Thr Arg Thr Pro Met Glu His Val Thr Pro Lys Pro Glu Thr
          500          505          510
His Leu Ala Ser Pro Lys Pro Thr Cys Met Val Pro Pro Met Pro His
          515          520          525
Ser Pro Val Ser Gly Asp Ser Val Glu Glu Glu Glu Glu Glu Lys
          530          535          540
Lys Val Cys Leu Pro Gly Phe Thr Gly Leu Val Asn Leu Gly Asn Thr
          545          550          555          560
Cys Phe Met Asn Ser Val Ile Gln Ser Leu Ser Asn Thr Arg Glu Leu
          565          570          575
Arg Asp Phe Phe His Asp Arg Ser Phe Glu Ala Glu Ile Asn Tyr Asn
          580          585          590
Asn Pro Leu Gly Thr Gly Gly Arg Leu Ala Ile Gly Phe Ala Val Leu
          595          600          605
Leu Arg Ala Leu Trp Lys Gly Thr His His Ala Phe Gln Pro Ser Lys
          610          615          620
Leu Lys Ala Ile Val Ala Ser Lys Ala Ser Gln Phe Thr Gly Tyr Ala
          625          630          635          640
Gln His Asp Ala Gln Glu Phe Met Ala Phe Leu Leu Asp Gly Leu His
          645          650          655
Glu Asp Leu Asn Arg Ile Gln Asn Lys Pro Tyr Thr Glu Thr Val Asp
          660          665          670
Ser Asp Gly Arg Pro Asp Glu Val Val Ala Glu Glu Ala Trp Gln Arg
          675          680          685
His Lys Met Arg Asn Asp Ser Phe Ile Val Asp Leu Phe Gln Gly Gln
          690          695          700
Tyr Lys Ser Lys Leu Val Cys Pro Val Cys Ala Lys Val Ser Ile Thr
          705          710          715          720
Phe Asp Pro Phe Leu Tyr Leu Pro Val Pro Leu Pro Gln Lys Gln Lys
          725          730          735
Val Leu Pro Val Phe Tyr Phe Ala Arg Glu Pro His Ser Lys Pro Ile
          740          745          750
Lys Phe Leu Val Ser Val Ser Lys Glu Asn Ser Thr Ala Ser Glu Val
          755          760          765
Leu Asp Ser Leu Ser Gln Ser Val His Val Lys Pro Glu Asn Leu Arg
          770          775          780
Leu Ala Glu Val Ile Lys Asn Arg Phe His Arg Val Phe Leu Pro Ser
          785          790          795          800
His Ser Leu Asp Thr Val Ser Pro Ser Asp Thr Leu Leu Cys Phe Glu

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805										810										815									
Leu	Leu	Ser	Ser	Glu	Leu	Ala	Lys	Glu	Arg	Val	Val	Val	Leu	Glu	Val														
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Gln	Gln	Arg	Pro	Gln	Val	Pro	Ser	Val	Pro	Ile	Ser	Lys	Cys	Ala	Ala														
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Cys	Gln	Arg	Lys	Gln	Gln	Ser	Glu	Asp	Glu	Lys	Leu	Lys	Arg	Cys	Thr														
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Arg	Cys	Tyr	Arg	Val	Gly	Tyr	Cys	Asn	Gln	Leu	Cys	Gln	Lys	Thr	His														
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Trp	Pro	Asp	His	Lys	Gly	Leu	Cys	Arg	Pro	Glu	Asn	Ile	Gly	Tyr	Pro														
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Phe	Leu	Val	Ser	Val	Pro	Ala	Ser	Arg	Leu	Thr	Tyr	Ala	Arg	Leu	Ala														
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Gln	Leu	Leu	Glu	Gly	Tyr	Ala	Arg	Tyr	Ser	Val	Ser	Val	Phe	Gln	Pro														
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Pro	Phe	Gln	Pro	Gly	Arg	Met	Ala	Leu	Glu	Ser	Gln	Ser	Pro	Gly	Cys														
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Ile</																													

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Phe Tyr Arg Arg Arg Asn Ser Pro Val Glu Arg Pro Pro Arg Ala Gly		
1265	1270	1275
His Ser Glu His His Pro Asp Leu Gly Pro Ala Ala Glu Ala Ala Ala		
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Ser Gln Ala Ser Arg Ile Trp Gln Glu Leu Glu Ala Glu Glu Glu Pro		
1300	1305	1310
Val Pro Glu Gly Ser Gly Pro Leu Gly Pro Trp Gly Pro Gln Asp Trp		
1315	1320	1325
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 Val Ser Val Thr Val Leu Asp Val Asn Asp Asn Asn Pro Thr Phe Thr
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 Gln Pro Glu Tyr Thr Val Arg Leu Asn Glu Asp Ala Ala Val Gly Thr
 100 105 110
 Ser Val Val Thr Val Ser Ala Val Asp Arg Asp Ala His Ser Val Ile
 115 120 125
 Thr Tyr Gln Ile Thr Ser Gly Asn Thr Arg Asn Arg Phe Ser Ile Thr
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 Ser Gln Ser Gly Gly Gly Leu Val Ser Leu Ala Leu Pro Leu Asp Tyr
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 Lys Leu Glu Arg Gln Tyr Val Leu Ala Val Thr Ala Ser Asp Gly Thr
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 His Arg Pro Val Phe Gln Ser Ser His Tyr Thr Val Asn Val Asn Glu
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 Pro Gln Phe Arg Ile Asp Ala Asp Thr Gly Ala Val Thr Thr Gln Ala
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 Glu Leu Asp Tyr Glu Asp Gln Val Ser Tyr Thr Leu Ala Ile Thr Ala

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Arg Asp Asn Gly Ile Pro Gln Lys Ser Asp Thr Thr Tyr Leu Glu Ile	275	280	285		
Leu Val Asn Asp Val Asn Asp Asn Ala Pro Gln Phe Leu Arg Asp Ser	290	295	300		
Tyr Gln Gly Ser Val Tyr Glu Asp Val Pro Pro Phe Thr Ser Val Leu	305	310	315		320
Gln Ile Ser Ala Thr Asp Arg Asp Ser Gly Leu Asn Gly Arg Val Phe	325	330	335		
Tyr Thr Phe Gln Gly Gly Asp Asp Gly Asp Gly Phe Ile Val Glu	340	345	350		
Ser Thr Ser Gly Ile Val Arg Thr Leu Arg Arg Leu Asp Arg Glu Asn	355	360	365		
Val Ala Gln Tyr Val Leu Arg Ala Tyr Ala Val Asp Lys Gly Met Pro	370	375	380		
Pro Ala Arg Thr Pro Met Glu Val Thr Val Thr Val Leu Asp Val Asn	385	390	395		400
Asp Asn Pro Pro Val Phe Glu Gln Asp Glu Phe Asp Val Phe Val Glu	405	410	415		
Glu Asn Ser Pro Ile Gly Leu Ala Val Ala Arg Val Thr Ala Thr Asp	420	425	430		
Pro Asp Glu Gly Thr Asn Ala Gln Ile Met Tyr Gln Ile Val Glu Gly	435	440	445		
Asn Ile Pro Glu Val Phe Gln Leu Asp Ile Phe Ser Gly Glu Leu Thr	450	455	460		
Ala Leu Val Asp Leu Asp Tyr Glu Asp Arg Pro Glu Tyr Val Leu Val	465	470	475		480
Ile Gln Ala Thr Ser Ala Pro Leu Val Ser Arg Ala Thr Val His Val	485	490	495		
Arg Leu Leu Asp Arg Asn Asp Asn Pro Pro Val Leu Gly Asn Phe Glu	500	505	510		
Ile Leu Phe Asn Asn Tyr Val Thr Asn Arg Ser Ser Ser Phe Pro Gly	515	520	525		
Gly Ala Ile Gly Arg Val Pro Ala His Asp Pro Asp Ile Ser Asp Ser	530	535	540		
Leu Thr Tyr Ser Phe Glu Arg Gly Asn Glu Leu Ser Leu Val Leu Leu	545	550	555		560
Asn Ala Ser Thr Gly Glu Leu Lys Leu Ser Arg Ala Leu Asp Asn Asn	565	570	575		
Arg Pro Leu Glu Ala Leu Met Ser Val Ser Val Ser Asp Gly Ile His	580	585	590		
Ser Val Thr Ala Phe Cys Thr Leu Arg Val Thr Ile Ile Thr Asp Asp	595	600	605		
Met Leu Thr Asn Ser Ile Thr Val Arg Leu Glu Asn Met Ser Gln Glu	610	615	620		
Lys Phe Leu Ser Pro Leu Leu Ala Leu Phe Val Glu Gly Val Ala Ala	625	630	635		640
Val Leu Ser Thr Thr Lys Asp Asp Val Phe Val Phe Asn Val Gln Asn	645	650	655		
Asp Thr Asp Val Ser Ser Asn Ile Leu Asn Val Thr Phe Ser Ala Leu	660	665	670		
Leu Pro Gly Gly Val Arg Gly Gln Phe Phe Pro Ser Glu Asp Leu Gln	675	680	685		
Glu Gln Ile Tyr Leu Asn Arg Thr Leu Leu Thr Thr Ile Ser Thr Gln					

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Phe Leu Ser Ser Thr Thr Val Leu Phe Arg Pro Ile His Pro Ile Asn					
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Val Thr Thr Arg Ser Phe Pro Ala His Ser Phe Ile Thr Phe Arg Gly					
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Leu Arg Gln Arg Phe His Phe Thr Leu Ala Leu Ser Phe Ala Thr Lys					
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Glu Arg Asp Gly Leu Leu Leu Tyr Asn Gly Arg Phe Asn Glu Lys His					
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Asp Phe Val Ala Leu Glu Val Ile Gln Glu Gln Val Gln Leu Thr Phe					
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Ser Ala Gly Glu Ser Thr Thr Val Ser Pro Phe Val Pro Gly Gly					
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Val Ser Asp Gly Gln Trp His Thr Val Gln Leu Lys Tyr Tyr Asn Lys					
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Pro Leu Leu Gly Gln Thr Gly Leu Pro Gln Gly Pro Ser Glu Gln Lys					
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Val Ala Val Val Thr Val Asp Gly Cys Asp Thr Gly Val Ala Leu Arg					
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Phe Gly Ser Val Leu Gly Asn Tyr Ser Cys Ala Ala Gln Gly Thr Gln					
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Gly Gly Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly					
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Gly Val Pro Asp Leu Pro Glu Ser Phe Pro Val Arg Met Arg Gln Phe					
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Val Gly Cys Met Arg Asn Leu Gln Val Asp Ser Arg His Ile Asp Met					
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Ala Asp Phe Ile Ala Asn Asn Gly Thr Val Pro Gly Cys Pro Ala Lys					
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Lys Asn Val Cys Asp Ser Asn Thr Cys His Asn Gly Gly Thr Cys Val					
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Asn Gln Trp Asp Ala Phe Ser Cys Glu Cys Pro Leu Gly Phe Gly Gly					
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Lys Ser Cys Ala Gln Glu Met Ala Asn Pro Gln His Phe Leu Gly Ser					
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Ser Leu Val Ala Trp His Gly Leu Ser Leu Pro Ile Ser Gln Pro Trp					
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Tyr Leu Ser Leu Met Phe Arg Thr Arg Gln Ala Asp Gly Val Leu Leu					

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 Gln Leu Ala Leu Gly Ala Ser Gly Gly Pro Gly His Ala Ile Leu Ser
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 5237

<210> 3914

<211> 1435

<212> PRT

<213> Homo sapiens

<400> 3914

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			20						25					30	
Arg	Leu	Asn	His	Leu	Ser	Phe	Ala	Glu	Leu	Leu	Lys	Pro	Phe	Ser	Arg
		35					40					45			
Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
		50				55					60				
Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
65					70				75					80	
Gln	Pro	Gly	Ala	Ile	Arg	Lys	Leu	Leu	Asn	Asp	Val	Val	Ser	Gly	Ser
			85						90					95	
Gln	Pro	Ala	Glu	Gly	Leu	Val	Ala	Asn	Val	Ile	Thr	Ala	Gly	Asp	Tyr
		100					105					110			
Asp	Leu	Asn	Ile	Ser	Ala	Thr	Thr	Pro	Trp	Phe	Glu	Ser	Tyr	Arg	Glu
		115					120					125			
Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
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Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
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Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
				165					170					175	
Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
		180						185					190		
Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
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Ser	Ile	Tyr	Glu	Glu	Met	Lys	Gln	Lys	Tyr	Gly	Thr	Gln	Gly	Cys	Tyr

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Leu Leu Lys Ile Asn Ser Arg Thr Ser Asn Arg Ala Ser Asp Glu Gln		
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Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
260	265	270
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		
275	280	285
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		
290	295	300
Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
340	345	350
Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		
355	360	365
Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		
370	375	380
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		
385	390	395
Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		
	405	410
Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
420	425	430
Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		
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Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		
450	455	460
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		
465	470	475
Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
500	505	510
Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		
515	520	525
Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Leu Glu Gln		
530	535	540
Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		
545	550	555
Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		
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Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
580	585	590
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		
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Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		
610	615	620
Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		
625	630	635
Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

645 650 655
 Ser Pro Asp Gly Pro Leu Pro Gln Leu Pro Leu Pro Tyr Ile Asn Ser
 660 665 670
 Ser Ala Thr Arg Val Phe Phe Gly His Asp Arg Arg Pro Ala Asp Gly
 675 680 685
 Glu Lys Gln Ala Ala Thr His Val Ser Leu Asp Gln Glu Tyr Asp Ser
 690 695 700
 Glu Ser Ser Gln Gln Trp Arg Glu Leu Glu Glu Gln Val Val Ser Val
 705 710 715 720
 Val Asn Lys Gly Val Ile Pro Ser Asn Phe His Pro Thr Gln Tyr Cys
 725 730 735
 Leu Asn Ser Tyr Ser Asp Asn Ser Arg Phe Pro Leu Ala Val Val Glu
 740 745 750
 Glu Pro Ile Thr Val Glu Val Ala Phe Arg Asn Pro Leu Lys Val Leu
 755 760 765
 Leu Leu Leu Thr Asp Leu Ser Leu Leu Trp Lys Phe His Pro Lys Asp
 770 775 780
 Phe Ser Gly Lys Asp Asn Glu Glu Val Lys Gln Leu Val Thr Ser Glu
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 Pro Glu Met Ile Gly Ala Glu Val Ile Ser Glu Phe Leu Ile Asn Gly
 805 810 815
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 820 825 830
 Glu Leu His Ile Leu Gly Val Val Tyr Asn Leu Gly Thr Ile Gln Gly
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 Ser Met Thr Val Asp Gly Ile Gly Ala Leu Pro Gly Cys His Thr Gly
 850 855 860
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 865 870 875 880
 Gln Gly Pro Arg Leu Asn Asn Thr Lys Glu Glu Lys Thr Ser Val Lys
 885 890 895
 Tyr Gly Pro Asp Arg Arg Leu Asp Pro Ile Ile Thr Glu Glu Met Pro
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 915 920 925
 Glu Ile Arg Lys Ala Tyr Val Glu Phe Val Asn Val Ser Lys Cys Pro
 930 935 940
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 Gly Gly Asn Thr Ala Val Leu Thr Pro Leu Ser Pro Ser Ala Ser Glu
 965 970 975
 Asn Cys Ser Ala Tyr Lys Thr Val Val Thr Asp Ala Thr Ser Val Cys
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 Thr Ala Leu Ile Ser Ser Ala Ser Val Asp Phe Gly Ile Gly Thr
 995 1000 1005
 Gly Ser Gln Pro Glu Val Ile Pro Val Pro Leu Pro Asp Thr Val Leu
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 1045 1050 1055
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 1060 1065 1070
 Ile Cys Thr Ser Arg Ser Leu Asn Val Arg Ala Thr Val Cys Arg Ser

1075 1080 1085
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 1090 1095 1100
 Val Asp Val Glu Asn Thr Asn Thr Ser Glu Ala Gly Val Lys Glu Phe
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 His Ile Val Gln Val Ser Ser Ser Ser Lys His Trp Lys Leu Gln Lys
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 Lys Gly Lys Phe Cys Phe Lys Ala Ile Arg Cys Glu Lys Glu Glu Ala
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 Ala Thr Gln Ser Ser Glu Lys Tyr Thr Phe Ala Asp Ile Ile Phe Gly
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 Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val
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 His Thr Glu Lys Gln Ser Thr Glu Asp Ala Val Arg Leu Ile Gln Lys
 1220 1225 1230
 Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val
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 Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile
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 Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr
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 Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser
 1315 1320 1325
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 1330 1335 1340
 Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu
 1345 1350 1355 1360
 Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr
 1365 1370 1375
 Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala
 1380 1385 1390
 Cys Phe Val His Thr Gly Val Tyr Asn Leu Glu Gly Thr Pro Arg Val Phe
 1395 1400 1405
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<210> 3915

<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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240
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420
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720
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 1800
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 1802

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 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 3916
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 35 40 45
 Leu Glu Lys Arg Gln Glu Gly Arg Ser Ser Thr Gln Thr Leu Glu Asp
 50 55 60
 Ser Trp Arg Tyr Glu Glu Thr Ser Glu Asn Glu Ala Val Ala Glu Glu
 65 70 75 80
 Glu Glu Glu Glu Val Glu Glu Glu Gly Glu Glu Asp Val Phe Thr Glu
 85 90 95
 Lys Ala Ser Pro Asp Met Asp Gly Tyr Pro Ala Leu Lys Val Asp Lys
 100 105 110
 Glu Thr Asn Thr Glu Thr Pro Ala Pro Ser Pro Thr Val Val Arg Pro
 115 120 125
 Lys Asp Arg Arg Val Gly Thr Pro Ser Gln Gly Pro Phe Leu Arg Gly
 130 135 140
 Ser Thr Ile Ile Arg Ser Lys Thr Phe Ser Pro Gly Pro Gln Ser Gln
 145 150 155 160
 Tyr Val Cys Arg Leu Asn Arg Ser Asp Ser Asp Ser Ser Thr Leu Ser
 165 170 175
 Lys Lys Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg
 180 185 190
 Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu
 195 200 205
 Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu
 210 215 220
 Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val
 225 230 235 240
 Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu
 245 250 255
 Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu
 260 265 270
 Leu Arg Met Leu Glu Lys Arg Gln Met Asp Arg Ala Glu His Lys Gly
 275 280 285
 Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp Val His
 290 295 300
 Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe
 305 310 315 320
 Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala

325 330 335
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 <210> 3917
 <211> 597
 <212> DNA
 <213> Homo sapiens
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 120
 taacatcaga aacaggtgag aatgacctt ttaactcacc gggcccgctc cactgaaata
 180
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 240
 gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
 300
 cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca
 360
 ggctctgcag ggggcatcct gatagagctg gccatgcggg gtccaatcta tctggaaccc
 420
 ccgaccatgc gtaagaagcg actactagac agaaaggtac tgctaaagtc agacagccca
 480
 acaggtgatg ttttactgga tgaactctg aaacacatca aagcaactga acccacagaa
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 <211> 152
 <212> PRT
 <213> Homo sapiens
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 20 25 30
 Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
 35 40 45
 Met Glu Glu Val Leu Leu Glu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
 50 55 60
 Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
 65 70 75 80
 Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
 85 90 95
 Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
 100 105 110
 Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
 115 120 125
 Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

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Glu Thr Trp Asn Pro Phe Lys Leu		
145	150	

<210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

<400> 3919
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 caggcacacag atccacccag ccccatcaag tcctccagcy ccgactcac tcccagcccc
 180
 accagcagcc tctctagcga agacaagcag cacttggccg tagagctggc cgaccaaacg
 240
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 360
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 420
 aaggcgaacc gcgtggagag gctggagctg gagctgaccc gctgcaagga gaagctgcac
 480
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 540
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 660
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 720
 gcacagaagc agagcatgaa cgaatctgcc cactctggct gggagctgga gcagctgtcc
 780
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 960
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 1020
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 1080
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 1140
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 1260
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<210> 3920
 <211> 426
 <212> PRT
 <213> Homo sapiens

<400> 3920

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 Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35 40 45
 Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50 55 60
 Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65 70 75 80
 Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
 85 90 95
 Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
 100 105 110
 Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
 115 120 125
 Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
 130 135 140
 Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
 145 150 155 160
 Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
 165 170 175
 Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
 180 185 190
 Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
 195 200 205
 Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
 210 215 220
 Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
 225 230 235 240
 Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
 245 250 255
 Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
 260 265 270
 Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
 275 280 285
 Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
 290 295 300
 Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
 305 310 315 320
 Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
 325 330 335
 Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
 340 345 350
 Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
 355 360 365
 Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp


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      370              375              380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser
385              390              395              400
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His
      405              410              415
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu
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<210> 3921
 <211> 413
 <212> DNA
 <213> Homo sapiens

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<400> 3921
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240
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300
ctccagccct tggagcttag gcagtgtagt gttaggatga ttattggatt tcctccacag
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413

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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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<400> 3922
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Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu
35      40      45
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
50      55      60
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
65      70      75      80
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
85      90      95
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
100     105     110
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
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<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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<210> 3924

<211> 250

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<213> Homo sapiens

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 Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 3926

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<211> 3197

<212> DNA

<213> Homo sapiens

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<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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<211> 470

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<213> Homo sapiens

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 <213> Homo sapiens

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<210> 3933
 <211> 4082

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Ser Ser Asn Lys Ser Pro Ser Ser Ala Trp Ser Ser Ser Ser Trp
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 His Gly Arg Ile Lys Gly Gly Met Lys Gly Phe Gln Ser Phe Met Val
 65 70 75 80
 Ser Asp Ser Asn Met Ser Phe Val Glu Phe Val Glu Leu Phe Lys Ser
 85 90 95
 Phe Ser Val Arg Ser Arg Lys Asp Leu Lys Asp Leu Phe Asp Xaa Leu

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<210> 3936
 <211> 265
 <212> PRT

<213> Homo sapiens

<400> 3936

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 65          70          75          80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
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Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
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Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
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Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
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Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
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Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
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Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
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Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
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<212> DNA

<213> Homo sapiens

<400> 3937

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<212> PRT

<213> Homo sapiens

<400> 3938

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<211> 490

<212> DNA

<213> Homo sapiens

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<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

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gagccacctt ccgcaccagg ggcctctgcc tgctaggcag ccacatgacc tgggtgctggg
1560
ggaagccgga gtgcagcacg gcctccagag tcacgttgat aaaactgctg ctcaacctgc
1620
gtgacccgcc ccgggagcac ccctaccgca gcagttttat caacgtgact ctggaggccg
1680
tgctgcactc cggcttcccc cagctccagg tgctctagga ggagtaggta ctcttacgca
1740
tcgtgcagaa gagaagctct aggtgcctc tcttctgcct gcaggctcat tggctgccta
1800
gcaggcagag gccctgggtg cgggaagggtg ctcccgctt ccaacagaca tcagggtcca
1860
aggaggcagt cggcagcctg cggagaggcc acatccagcg gctgaacctg cgctacactc
1920
aggtgtcccg ccagcgtcca ggtgcctgcc ctgccctggg ctccctccagg agagggtggg
1980
actgagtctc taacagtctc gccaccacca cccccaaca cacacacaca cacacacaca
2040
ctgtcgggca gagggatggg cacacagagg tatcagg
2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942
 Ala Pro Tyr Phe Pro Glu Gly Ala Pro Gly Leu Gln Gly His Leu Lys
 1 5 10 15
 Gly Trp Ser Pro Gly Pro Ala Gly Pro Gln Gly Thr Gly Ser Pro Pro
 20 25 30
 Gln Glu Arg Ser Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
 65 70 75 80
 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

<400> 3943
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 120
 gggaagccgc agccgcagga cgaggacgac gcgaggagg aggaggagga ggaatgagctg
 180
 gtggggctag cggactacgg agacggggccc gactcctccg acgcccgatcc ggacagcggc
 240
 acagaggagg gagttctgga ctctcagtc cccttcagca ctgaagtga ggcgagaatc
 300
 ctgctcatgg gcttgaggag aagcggcaag tctgtctattc agaaagtgtt ctttcacaaa
 360
 atgtctccca acgaaactct gttcttggag agcactaata agatattgcc ggaagtgtt
 420
 tccaacagct cttttgtcaa ttttcagatt tgggacttcc caggacagat tgactttttt
 480
 gacctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaagacc
 600
 tacaagatta acccagacat gaattttgag gtttttatcc ataaagttga tggctctgtc
 660
 gatgatcaca aaatagaaac acagagggac attcatcaaa gggccaatga tgaccttgca
 720
 gatgtcggat tagaaaaaat tcacctcagc ttttatctga caagcatata tgatcattca
 780
 atatttgaag ctttttagca agttgttccag aaactgattc cacaactccc aactctggag
 840
 aatttgcctg acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc
 960
 tgctgtgata tgatagatgt ggttattgac atctcttgta tttatggtct caaagaagat
 1020
 ggagcaggaa cccctatga caaggaatcc acagccatca taaagcttaa taatacaacc
 1080
 gtgctttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cacagaggaa
 1140
 agctttgaaa gaaaagggt aattgactat aattttcatt gcttcggaa ggccattcat
 1200
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcgggtgcag
 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
 gaatgtcttt tgaatcaga ccttatccat gaggtgctg cgccatgttg cactaaagga
 1380
 agaggaagaa ggagattggg acacatacca ttgatttggt gttaaaaaaa aaaaattcct
 1440
 gcaaccctct tgatcttctc tttataaat aaagtaagca ctttgaagca aaaaaaaaaa
 1500
 aaaaaaaaaa aaaaaaaaaa aaaa
 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

Ser	Arg	Gln	Lys	Ser	Ala	Ser	Glu	Ile	Gly	Cys	Gly	Arg	Pro	Ala	Arg
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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25						30	
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40					45			
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
		50				55					60				
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
					70					75					80
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100					105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
		130			135						140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
				150					155					160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170						175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
			180					185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

195 200 205
 Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys
 210 215 220
 Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala
 225 230 235 240
 Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile
 245 250 255
 Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu
 260 265 270
 Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser
 275 280 285
 Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile
 290 295 300
 Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu
 305 310 315 320
 Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly
 325 330 335
 Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala
 340 345 350
 Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr
 355 360 365
 Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg
 370 375 380
 Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His
 385 390 395 400
 Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln
 405 410 415
 Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg
 420 425 430
 Val Leu Leu
 435

<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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 agccgagagt ggatcgctgg gctgggctaa cggcgacgga gagcgcccc tgcgtgactc
 120
 cgggcgcgcc cagcagtagc accgccccgc cccgccctg gacacttgta agtttcgatt
 180
 tccgatttcc gcggaaccga gtcccgccgc cgggcagagc cagcacagcc agcgcgccat
 240
 ggcggacccg gagggtgtgt gtttcacac caaaatctgt tgcgccacg ggggcccgat
 300
 ggccttgagc gcgctgtccc aggagatcgc gctgtcttag ccgcagctct gtgaggtgct
 360
 gcaggtggcc gggccccgac gctttgttgt gttggagacc ggcggcgagg ccgggatcac
 420
 ccgatcggtg gtggccacca ctcgagcccc ggtctgcctg cgcaagtact gccagagacc
 480

ctgcgataac ctgcattctt gcaaaactcaa cttgctgggc cgggtgcaact attcgagtc
 540
 cgagcgggaat ttatgcaaat attctcatga ggtctctctca gaagagaact tcaaagtcct
 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgtctcc tcttccaaaag
 660
 tgatcctttt ttatgcccg agccctatgc agtctc
 696

<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

Met Gln Val Ile Ala Gly Ser Leu Ala Val Leu Ala Thr Ala Asp Pro
 1 5 10 15
 Gly Ser Ser Gly Gly His His Arg Ser Gly Asp Pro Gly Leu Ala Ala
 20 25 30
 Gly Leu Gln His His Lys Ala Val Gly Pro Gly His Leu Gln His Leu
 35 40 45
 Thr Glu Leu Arg Leu Arg Gln Arg Asp Leu Leu Glu Gln Arg Val Gln
 50 55 60
 Gly His Ala Ala Pro Val Gly Ala Gln Asp Phe Gly Asp Glu Ala Ala
 65 70 75 80
 His Leu Arg Val Arg His Gly Ala Leu Ala Val Leu Ala Leu Pro Arg
 85 90 95
 Arg Gly Thr Arg Phe Arg Gly Asn Arg Lys Ser Lys Leu Thr Ser Val
 100 105 110
 Gln Gly Arg Ala Arg Ala Val Leu Leu Gly Ala Pro Gly Val Ser
 115 120 125
 Glu Gly Ala Leu Ser Val Ala Val Ser Pro Ala Gln Arg Ser Thr Leu
 130 135 140
 Gly Ser Gln Val Lys Arg Leu Asp Leu Thr Asp Arg Val Leu Val Ala
 145 150 155 160
 Gly Leu Gln Pro Ala
 165

<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

nnggagaagc aggccattct cttggcgctg atcgaggagc ggggccgctt ctgcaccttc
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 120
 ctgcagggca tcatcgacga cttgggtggtg ctgacagcag aaccccacaa actgctccc
 180
 gccagcgagc aggtaataca agacctaaag ggctcggact acagctgggtc ctaccagacc
 240
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccccagc
 300

agcagtagca gtgccaagggt tggcggaagc cccatggcct ggggggtgccc aaacatactc
 360
 acccagttcc acctgtcgct accgcagcct ggcgagccca
 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
 Xaa Glu Lys Gln Ala Ile Leu Leu Ala Leu Ile Glu Glu Arg Gly Arg
 1 5 10 15
 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

<400> 3949
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 taccacagaga gcaagacaca ggtctgcatt gtgcagcaca gctaaagttc ctttagaaaa
 120
 ccaccatctt tctggctgca agagtcagggt gtcagaatgg ggggcagcca ccaactgctga
 180
 aaagagtggg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaaccttt
 240
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca
 300
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttectaata
 360
 gtcacttccac agaaaaatat ataggtgctg ttttgccctg gaagccagac agatcagaat
 420
 attgggttaag atagctgggt cagctgtcct tggatggatc ccaaacacta tgetcctttc
 480
 caggcctgag aatcgccgaa cactgtccaa cacaatgtga tcaccaaca tatcacatgc
 540

atcaactgagc tgcaccaccc ttttcttctt cattgtcttc aagagctcat acttatagtg
 600
 ctccacttct tttgcggtgc tgacaagcac agcaacatcc tttggagaat agcccctatc
 660
 aaagaagcgc ctgcacgtgt ctgccacaca ggtcattatt tgctccacag tcaagtattt
 720
 cttaattcgt aaggttccct gaacaccctg ggaccattcg gcttcaggaa atacctcgag
 780
 gcaccacgtg gggatattaa ttggaggatt ttctataatt agttgcattt ctttttgtaa
 840
 gtactcggct atttcacatg cattgcgaac tattctgggt agctcttctc ttggatattg
 900
 gtctgagaga ggaggagggc cactgtgacc caagtggctg gtctgaaagt aatccagaaa
 960
 gatccagaga actcctggac aatccttttc tctctgagtg atgctttttg ccttcccata
 1020
 ccagtcacca tcttcagtac ggaattctg agcttctgca atgacgatgt gtggaatgtg
 1080
 ttcaaatttt tctcttagga aagtttcccg ggtctctgct cggcagatat ttctatcact
 1140
 gataaagttc ctacagaggct ggttttcaca aacgtagaga attctgtgtg cctcacagtg
 1200
 aaacacatcc ctgatcttct ccatgatttt catggccatg atgttcttcc ctgagccagg
 1260
 taagccgtgg acaacaact ctctgttctt cgaggagctt ctgagaata tctcatactg
 1320
 ctgggctgtg agcagattta aaacctcaca gccagagctg tcaactcaaga gagacctgaa
 1380
 gcogagtaag acaatcacga gggactgcag cagggtcttc atgtgctgtgg tgcttgcagg
 1440
 gctataggac gcagggtaat cc
 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

Met Glu Ala Leu Leu Gln Ser Leu Val Ile Val Leu Leu Gly Phe Arg
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 Ser Leu Leu Ser Asp Gln Leu Gly Cys Glu Val Leu Asn Leu Leu Thr
 20 25 30
 Ala Gln Gln Tyr Glu Ile Phe Ser Arg Ser Leu Arg Lys Asn Arg Glu
 35 40 45
 Leu Phe Val His Gly Leu Pro Gly Ser Gly Lys Asn Ile Met Ala Met
 50 55 60
 Lys Ile Met Glu Lys Ile Arg Asn Val Phe His Cys Glu Ala His Arg
 65 70 75 80
 Ile Leu Tyr Val Cys Glu Asn Gln Pro Leu Arg Asn Phe Ile Ser Asp
 85 90 95
 Arg Asn Ile Cys Arg Ala Glu Thr Arg Glu Thr Phe Leu Arg Glu Lys
 100 105 110
 Phe Glu His Ile Gln His Ile Val Ile Asp Glu Ala Gln Asn Phe Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr	Gly Lys Ala Lys Ser	Ile Thr Gln Arg
130	135	140
Glu Lys Asp Cys Pro Gly Val	Leu Trp Ile Phe	Leu Asp Tyr Phe Gln
145	150	155
Thr Ser His Leu Gly His Ser	Gly Leu Pro Pro	Leu Ser Asp Gln Tyr
165	170	175
Pro Arg Glu Glu Leu Thr Arg	Ile Val Arg Asn Ala	Asp Glu Ile Ala
180	185	190
Glu Tyr Leu Gln Lys Glu Met	Gln Leu Ile Ile	Glu Asn Pro Pro Ile
195	200	205
Asn Ile Pro Thr Gly Cys Leu	Glu Val Phe Pro	Glu Ala Glu Trp Ser
210	215	220
Gln Gly Val Gln Gly Thr Leu	Arg Ile Lys Lys	Tyr Leu Thr Val Glu
225	230	235
Gln Ile Met Thr Cys Val Ala	Asp Thr Cys Arg	Phe Phe Asp Arg
245	250	255
Gly Tyr Ser Pro Lys Asp Val	Ala Val Leu Val	Ser Thr Ala Lys Glu
260	265	270
Val Glu His Tyr Lys Tyr Glu	Leu Leu Lys Ala	Met Arg Lys Lys Arg
275	280	285
Val Val Gln Leu Ser Asp Ala	Cys Asp Met Leu	Gly Asp His Ile Val
290	295	300
Leu Asp Ser Val Arg Arg Phe	Ser Gly Leu Glu	Arg Ser Ile Val Phe
305	310	315
Gly Ile His Pro Arg Thr Ala	Asp Pro Ala Ile	Leu Pro Asn Ile Leu
325	330	335
Ile Cys Leu Ala Ser Arg Ala	Lys Gln His Leu	Tyr Ile Phe Leu
340	345	350

<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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 120
 gtccaggagt tccaggttcc ggattatggt ccatggcagc agtccaagca ggaaccaag
 180
 ccatctactc tgcctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact
 240
 ttgactaggg tccaaccagt gtttcacttc aagccacta cgggtggtag aagctgaccg
 300
 ccgaagaatc caagagaact acatagaagg cggaagttgg accctgggaa gatgcatgcc
 360
 aaaatctggt taatgaagac ctgcctcagg agcgggaggg ccgctctgag agagctccga
 420
 agccgtgaga acttctctcag caagctcaac cgggagctga tcgagaccat ccaggagatg
 480
 gagaacagca cgaccctgca cgtgcggggc ctgctgcagc agcaggacac cctggcgacc
 540

atcatcgaca tcttgagta ctcaacaag aagaggctgc agcaattgaa atctgagctt
 600
 caggagtggg aagaaaaagaa gaaatgcaag atgagctatc ttgagcagca ggcagagcag
 660
 ctgaaatcca agattgagaa gacccaggag gaagtgaact tctgagcac ttacatggac
 720
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 780
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 900
 gcgcagaaaag gtccctgggaa tctctgtccg acaagattca gaagaagaag aaaaaaatc
 960
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 1012

<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35				40					45				
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
		50				55				60					
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
		65				70				75				80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
			85					90					95		
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
			115				120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
			130			135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
			145			150				155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165					170					175		
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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120
gacaaagctca ggtgcttggt ttaaggaaaag gggctactag agtettacca acagcgagcc
180
caggtgggag atgaaacagg tactcccca aatagggtcat ccgaggggagg aaaactgatg
240
gagagcaciaa tgtgctctga gcgttttttaa tgtttttaag cttttaaatg atttcttcaa
300
ggccgagcag cagcagcaaa ggtgtggcct aaaggattaa gggggtttct gctggcacct
360
agaatgaagt tactctatta ctaatcaagc cgagaggagg cccactatgc ccccgtttat
420
catcctttcc cagttccttt ttgctgggtca caaaacgatg ctcatcaatc ccacctaag
480
caggagccca ggagcccagc ctcttgtaga aacagcgagg gtataactgc cctcccgctc
540
tgcccccaag acgaaggagg actctcgga gccaagaaag gttaagaag tctttctgga
600
tagagagcag tgcccaggca ggaagccttt gcgcggcaga gcggggctcg aggaagagct
660
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720
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780
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840
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1020
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1140
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1260
gtcaatgaag acaggtccaa cgcagacctc accactctga tgcacaacga gaacctgaat
1320
ggtgtgacct cgatcaccac ccccatcaaa actgcaaac aacaccaggg caagaagcaa
1380
caccctatcc agggaaaagc acaagtcctg accccagacc ccagggaagca gaagctgaac
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1560
ctggaaacact tcaacaacca gtatccagcc gcagaggtgg tgaactttgg caccctggtc
1620

ctcttcagct tcccatatc cctcatcatg ctgggtgtca gctggttctg gatgcactgg
 1680
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 1740
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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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Tyr	Phe	Lys	Asn	Thr	Thr	Leu
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Ala	Ala	Val	Glu	Lys	Trp	Asn
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Val	Leu	Met	Ala	Gly	Ala	Lys
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Cys	Cys	Thr	Thr	Leu	Leu	Ser
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Ala	Met	Val	Met	Pro	Ile	Val
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Glu	Pro	Ile	Ser	Leu	Asp	Val
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Ile	Phe	Val	Asn	Glu	Asp	Arg
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Tyr	Arg	Ser	His	His	Asp	Gln
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Lys	Leu	Gly	Asp	Ile	Ser	Tyr
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Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
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Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
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<212> DNA

<213> Homo sapiens

<400> 3955

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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
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<210> 3957

<211> 3891

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<213> Homo sapiens

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<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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 Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
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<212> DNA

<213> Homo sapiens

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Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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 Gly Asn Gly Thr Pro Cys Ser Leu Lys Gln Asn Arg Pro Arg Ser Ser
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 Thr Val Met Tyr Ile Cys His Pro Glu Ser Lys His Glu Ile Leu Ser

35 40 45
 Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
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 Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
 65 70 75 80
 Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
 85 90 95
 Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
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 Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
 115 120 125
 Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
 130 135 140
 Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
 145 150 155 160
 Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
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 Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
 180 185 190
 Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
 195 200 205
 His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
 210 215 220
 Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
 225 230 235 240
 Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
 245 250 255
 Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
 260 265 270
 Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
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 Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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			20					25				30			
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
			35				40				45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

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Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr					
65	70		75		80
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser					
	85		90		95
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe					
	100		105		110
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro					
	115		120		125
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro					
	130		135		140
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala					
	145		150		155
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala					
	165		170		175
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln					
	180		185		190
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser					
	195		200		205
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu					
	210		215		220
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn					
	225		230		235
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His					
	245		250		255
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr					
	260		265		270
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe					
	275		280		285
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser					
	290		295		300
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser					
	305		310		315
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala					
	325		330		335
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp					
	340		345		350
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly					
	355		360		365
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn					
	370		375		380
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn					
	385		390		395
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn					
	405		410		415
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Asn Ser Gly Thr					
435					

<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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	35		40		45	
Ala	Gln	Arg	Ala	Leu	Tyr	Arg
	50		55		60	
Leu	Gly	Ala	Leu	Gly	Glu	Ala
	65		70		75	
Val	Gly	Phe	Ser	Val	Pro	Lys
	85		90		95	
Glu	Val	Glu	Ala	Trp	Ser	Pro
	100		105		110	
Ser	Ala	Ala	Phe	Ser	Arg	Gly
	115		120		125	
Gly	Asn	Glu	Glu	Lys	Glu	Arg
	130		135		140	
Val	Ala	His	Glu	Val	Ala	Val
	145		150		155	
Pro	Glu	Phe	Cys	Asn	Pro	Arg
	165		170		175	
Asp	Thr	Leu	Thr	Arg	Arg	Leu
	180		185		190	
Asn	Phe	Ser	Tyr	Pro	Ser	Leu
	195		200		205	
Gly	Glu	Arg	Pro	Phe	Ser	Cys
	210		215		220	
Arg	Arg	Tyr	Leu	Leu	Gln	His
	225		230		235	
Tyr	Pro	Cys	Pro	Asp	Cys	Gly
	245		250		255	
Ala	Ile	His	Arg	Arg	Ala	His
	260		265		270	
Asp	Cys	Lys	Ser	Arg	Phe	Thr
	275		280		285	
Arg	Lys	His	Thr	Gly	Glu	Lys
	290		295		300	
Arg	Phe	Ala	Tyr	Thr	Ser	Leu
	305		310		315	
Gly	Glu	Lys	Pro	Tyr	Pro	Cys
	325		330		335	
Ser	Ser	Leu	Leu	Ser	His	Arg
	340		345		350	
Phe	Pro	Cys	Val	Glu	Cys	Gly
	355		360		365	
Glu	Ala	His	Arg	Trp	Ile	His
	370		375		380	
Gln	Gln	Ala	Val	Val	Gly	Arg
	385		390		395	
Lys	Asp	Pro	Pro	Val	His	Phe
	405		410		415	
Phe	Cys	Gln	Gln	Arg	Leu	Gln
	420		425		430	
Pro	Val	Pro	Gly	Gln	Ser	Pro
	435		440		445	
Ser	Ser	Ala	Val	Ala	Tyr	Cys

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Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
465              470              475              480
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      485              490              495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala
      500              505              510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
      515              520              525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
      530              535              540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
      545              550              555
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
      565              570              575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
      580              585              590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
      595              600              605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
      610              615              620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
      625              630              635              640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
      645              650              655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
      660              665              670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
      675              680              685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
      690              695              700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
      705              710              715              720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
      725              730              735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Pro Gly
      740              745              750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
      755              760              765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
      770              775              780

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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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120
tactggatcc gaggcgggac ctccagtggac atcatcaaga ctggaggcta caaggtcagc
180

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gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
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300
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420
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720
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<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

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20 25 30
Thr Val Val Phe Lys Asp Gly Gln Tyr Trp Ile Arg Gly Arg Thr Ser
35 40 45
Val Asp Ile Ile Lys Thr Gly Gly Tyr Lys Val Ser Ala Leu Glu Val
50 55 60
Glu Trp His Leu Leu Ala His Pro Ser Ile Thr Asp Val Ala Val Ile
65 70 75 80
Gly Val Pro Asp Met Thr Trp Gly Gln Arg Val Thr Ala Val Val Thr
85 90 95
Leu Arg Glu Gly His Ser Leu Ser His Arg Glu Leu Lys Glu Trp Ala
100 105 110
Arg Asn Val Leu Ala Pro Tyr Ala Val Pro Ser Glu Leu Val Leu Val
115 120 125
Glu Glu Ile Pro Arg Asn Gln Met Gly Lys Ile Asp Lys Lys Ala Leu
130 135 140
Ile Arg His Phe His Pro Ser
145 150

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<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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 420
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<210> 3970

<211> 69

<212> PRT

<213> Homo sapiens

<400> 3970

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 20 25 30
 Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
 35 40 45
 Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
 50 55 60
 Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
 65 70 75 80
 Ile Trp Gly Gly Ile Ala Ser Arg Gln

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<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

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 180
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
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 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
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 Pro Leu Glu His His Gln Ser Arg
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<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

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			20					25				30			
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
		35				40						45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50				55			60							
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65				70				75				80			
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
			85					90				95			
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

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Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu
115      120      125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys
130      135      140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala
145      150      155
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu
165      170      175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr
180      185      190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro
195      200      205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val
210      215      220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met
225      230      235
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala
245      250      255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr
260      265      270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln
275      280      285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro
290      295      300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala
305      310      315
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<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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360
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480
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<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

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Arg Glu Ser Leu Pro Leu His Ser Leu Pro Arg Asp Gly Ser Trp Gly
      20           25           30
Leu Lys Gly Ala Trp Ala Ser Ala Ser Leu Gln Ala Ala Ser Asn Ser
      35           40           45
Gln Ser Gly Phe Gly Cys Pro Gln Cys Ser Pro Glu Ala Ala Ala Pro
      50           55           60
His Pro Thr Ile Leu Leu Leu Arg Arg Leu Gly Ile Ile Gly Leu Pro
      65           70           75           80
Trp Lys Gly Ser Ser Arg Arg Gly Leu Arg Glu Pro His Arg Cys Pro
      85           90           95
Leu Ala Cys Gln Thr
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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 120
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 720
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2340

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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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 35 40 45
 Gly Thr Asp Tyr Ile Arg Phe Thr Glu Phe Ile Glu Gln Tyr Thr Gly
 50 55 60
 His Val Gln Gln Gln Asp His His Pro Ser Gln Gln Gly Gln Gly
 65 70 75 80
 Leu His Gly Ile Tyr Leu Arg Ala Phe Cys Thr Gly Leu Asp Ser Val
 85 90 95
 Leu Gln Pro Tyr Arg Gln Ala Leu Leu Asp Leu Glu Gln Glu Phe Leu
 100 105 110
 Gly Asp Pro His Leu Ser Ile Ser His Val Asn Tyr Phe Leu Asp Gln
 115 120 125
 Phe Gln Leu Leu Phe Pro Ser Val Met Val Val Val Glu Gln Ile Lys
 130 135 140
 Ser Gln Lys Ile His Gly Cys Gln Ile Leu Glu Thr Val Tyr Lys His
 145 150 155 160
 Ser Cys Gly Gly Leu Pro Pro Val Arg Ser Ala Leu Glu Lys Ile Leu
 165 170 175
 Ala Val Cys His Gly Val Met Tyr Lys Gln Leu Ser Ala Trp Met Leu
 180 185 190
 His Gly Leu Leu Leu Asp Gln His Glu Glu Phe Phe Ile Lys Gln Gly
 195 200 205
 Pro Ser Ser Gly Asn Val Ser Ala Gln Pro Glu Glu Asp Glu Glu Asp
 210 215 220
 Leu Gly Ile Gly Gly Leu Thr Gly Lys Gln Leu Arg Glu Leu Gln Asp
 225 230 235 240
 Leu Arg Leu Ile Glu Glu Glu Asn Met Leu Ala Pro Ser Leu Lys Gln
 245 250 255
 Phe Ser Leu Arg Val Glu Ile Leu Pro Ser Tyr Ile Pro Val Arg Val
 260 265 270
 Ala Glu Lys Ile Leu Phe Val Gly Glu Ser Val Gln Met Phe Glu Asn

275	280	285
Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu		
290	295	300
Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe		
305	310	315
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val		
325	330	335
Ala Glu His Leu Trp Lys Leu Met Val Glu Ser Asp Leu Leu Gly		
340	345	350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu		
355	360	365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro		
370	375	380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala		
385	390	395
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu		
405	410	415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa		
420	425	430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser		
435	440	445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His		
450	455	460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys		
465	470	475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp		
485	490	495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala		
500	505	510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu		
515	520	525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu		
530	535	540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala		
545	550	555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu		
565	570	575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser		
580	585	590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly		
595	600	605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser		
610	615	620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser		
625	630	635
Asp Leu Ala Gln Leu Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr		
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979
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<210> 3980

<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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			20					25				30			
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
			35				40					45			
Leu	Glu	Gly	Asp	Lys	Gln	Leu	Ile	Arg	Glu	Thr	Ser	Thr	His	Gln	Leu

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Asn Ser Glu Arg Tyr Val His Thr Phe Lys Asp Leu Ser Asn Phe Ser				
65	70		75	80
Gly Ala Ile Asn Val Thr Tyr Arg Tyr Leu Ala Ala Thr Pro Leu Gln				
	85		90	95
Arg Lys Arg Tyr Leu Thr Ile Gly Leu Ser Ser Val Lys Arg Lys Lys				
	100		105	110
Gly Asn Tyr Leu Leu Glu Thr Ile Lys Ser Ile Phe Glu Gln Ser Ser				
	115		120	125
Tyr Glu Glu Leu Lys Glu Ile Ser Val Val Val His Leu Ala Asp Phe				
	130		135	140
Asn Ser Ser Trp Arg Asp Ala Met Val Gln Asp Ile Thr Gln Lys Phe				
145	150		155	160
Ala His His Ile Ala Ala Gly Arg Leu Met Val Ile His Ala Pro Glu				
	165		170	175
Glu Tyr Tyr Pro Ile Leu Asp Gly Leu Lys Arg Asn Tyr Asn Asp Pro				
	180		185	190
Glu Asp Arg Val Lys Phe Arg Ser Lys Gln Asn Val Asp Tyr Ala Phe				
	195		200	205
Leu Leu Asn Phe Cys Ala Asn Thr Ser Asp Tyr Tyr Val Met Leu Glu				
	210		215	220
Asp Asp Val Arg Cys Ser Lys Asn Phe Leu Thr Ala Ile Lys Lys Val				
225	230		235	240
Ile Ala Ser Leu Glu Gly Thr Tyr Trp Val Thr Leu Glu Phe Ser Lys				
	245		250	255
Leu Gly Tyr Ile Gly Lys Leu Tyr His Ser His Asp Leu Pro Arg Leu				
	260		265	270
Ala His Phe Leu Leu Met Phe Tyr Gln Glu Met Pro Cys Asp Trp Leu				
	275		280	285
Leu Thr His Phe Arg Gly Leu Leu Ala Gln Lys Asn Val Ile Arg Phe				
	290		295	300
Lys Pro Ser Leu Phe Gln His Met Gly Tyr Tyr Ser Ser Tyr Lys Gly				
305	310		315	320
Thr Glu Asn Lys Leu Lys Asp Asp Asp Phe Glu Glu Ser Phe Asp				
	325		330	335
Ile Pro Asp Asn Pro Pro Ala Ser Leu Tyr Thr Asn Met Asn Val Phe				
	340		345	350
Glu Asn Tyr Glu Ala Ser Lys Ala Tyr Ser Ser Val Asp Glu Tyr Phe				
	355		360	365
Trp Gly Lys Pro Pro Ser Thr Gly Asp Val Phe Val Ile Val Phe Glu				
	370		375	380
Asn Pro Ile Ile Ile Lys Lys Ile Lys Val Asn Thr Gly Thr Glu Asp				
385	390		395	400
Arg Gln Asn Asp Ile Leu His His Gly Ala Leu Asp Val Gly Glu Asn				
	405		410	415
Val Met Pro Ser Lys Gln Arg Arg Gln Cys Ser Ser Tyr Leu Arg Leu				
	420		425	430
Gly Glu Phe Lys Asn Gly Asn Phe Glu Met Ser Gly Val Asn Gln Lys				
	435		440	445
Ile Pro Phe Asp Ile His Cys Met Arg Ile Tyr Val Thr Lys Thr Gln				
	450		455	460
Lys Glu Trp Leu Ile Ile Arg Ser Ile Ser Ile Trp Thr Ser				
465	470		475	

<210> 3981
 <211> 4447
 <212> DNA
 <213> Homo sapiens

<400> 3981
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<211> 929

<212> PRT

<213> Homo sapiens

<400> 3982

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Lys Phe Lys Gly Asp Lys Ala Leu Asp Gly Tyr Ser Lys Lys Lys Tyr
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Val Cys Lys Leu Leu Phe Ile Phe Leu Leu Gly His Asp Ile Asp Phe
50     55     60
Gly His Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu
65     70     75     80
Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn Ser
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Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser
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Arg Asn Pro Thr Phe Met Gly Leu Ala Leu His Cys Ile Ala Ser Val
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Gly Ser Arg Glu Met Ala Glu Ala Phe Ala Gly Glu Ile Pro Lys Val
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Leu Val Ala Gly Asp Thr Met Asp Ser Val Lys Gln Ser Ala Ala Leu
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Cys Leu Leu Arg Leu Tyr Arg Thr Ser Pro Asp Leu Val Pro Met Gly
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Asp Trp Thr Ser Arg Val Val His Leu Leu Asn Asp Gln His Leu Gly
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Val Val Thr Ala Ala Thr Ser Leu Ile Thr Thr Leu Ala Gln Lys Asn
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Pro Glu Glu Phe Lys Thr Ser Val Ser Leu Ala Val Ser Arg Leu Ser
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Cys Tyr Pro Pro Pro Asp Pro Ala Val Arg Gly Arg Leu Thr Glu Cys
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Cys His Glu Asn Met Val Lys Val Gly Gly Tyr Ile Leu Gly Glu Phe
      485      490      495
Gly Asn Leu Ile Ala Gly Asp Pro Arg Ser Ser Pro Pro Val Gln Phe
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Ser Leu Leu His Ser Lys Phe His Leu Cys Ser Val Ala Thr Arg Ala
      515      520      525
Leu Leu Leu Ser Thr Tyr Ile Lys Phe Val Asn Leu Phe Pro Glu Val
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Lys Pro Thr Ile Gln Asp Val Leu Arg Ser Asp Ser Gln Leu Arg Asn
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Thr Val Ala Ser Thr Asp Ile Leu Ala Thr Val Leu Glu Glu Met Pro
      580      585      590
Pro Phe Pro Glu Arg Glu Ser Ser Ile Leu Ala Lys Leu Lys Lys Lys
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Lys Gly Pro Ser Thr Val Thr Asp Leu Glu Asp Thr Lys Arg Asp Arg
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Ser Val Asp Val Asn Gly Gly Pro Glu Pro Ala Pro Ala Ser Thr Ser
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Ala Val Ser Thr Pro Ser Pro Ser Ala Asp Leu Leu Gly Leu Gly Ala
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Ala Pro Pro Ala Pro Ala Gly Pro Pro Pro Ser Ser Gly Gly Ser Gly
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Leu Leu Val Asp Val Phe Ser Asp Ser Ala Ser Val Val Ala Pro Leu
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Ala Pro Gly Ser Glu Asp Asn Phe Ala Arg Phe Val Cys Lys Asn Asn
      690      695      700
Gly Val Leu Phe Glu Asn Gln Leu Leu Gln Ile Gly Leu Lys Ser Glu
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Phe Arg Gln Asn Leu Gly Arg Met Phe Ile Phe Tyr Gly Asn Lys Thr
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Ser Thr Gln Phe Leu Asn Phe Thr Pro Thr Leu Ile Cys Ser Asp Asp
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Asp Phe Thr Glu Ala Pro Val Leu Asn Ile Gln Phe Arg Tyr Gly Gly
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Thr Phe Gln Asn Val Ser Val Gln Leu Pro Ile Thr Leu Asn Lys Phe
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Phe Gln Pro Thr Glu Met Ala Ser Gln Asp Phe Phe Gln Arg Trp Lys
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Ser Ala Leu Leu Glu Glu Val Asp Pro Asn Pro Ala Asn Phe Val Gly
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Leu Glu Pro Asn Leu Gln Ala Gln Met Tyr Arg Leu Thr Leu Arg Thr
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<212> DNA
<213> Homo sapiens

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<211> 484

<212> PRT

<213> Homo sapiens

<400> 3984

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Val Ala Gln Gln Glu Asn His His Leu Asn Leu Asp Leu Lys Glu Ala
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Lys Ser Trp Gln Glu Glu Gln Ser Ala Gln Ala Gln Arg Leu Lys Asp
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Asp Ser Ser Ser Asp Ser Glu Ala Glu Asp Glu Lys Ser Val Leu Met
 385              390              395              400
Ala Ala Val Gln Ser Gly Gly Glu Glu Ala Asn Leu Leu Leu Pro Glu
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 420              425              430
Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr Pro Thr Trp Lys Glu
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Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu Ser Asp Lys Asp Ala
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<213> Homo sapiens

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Ser Ser Cys Phe Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys
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Cys Cys Trp Met Arg Leu Arg Ser Glu Arg Leu Ser Ser Ala Leu Ala
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<212> DNA
<213> Homo sapiens

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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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Asn	Tyr	Arg	Gln	Ala	Tyr	Ser	Pro	Arg	Arg	Gly	Arg	Ser	Arg	Ser	Arg
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Pro	Pro	Ser	Thr	Gly	Ser	Thr	Tyr	Gly	Ser	Ser	Gln	Lys	Glu	Glu	Ser
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Ala	Ala	Ser	Gly	Gly	Ala	Ala	Tyr	Thr	Lys	Arg	Tyr	Leu	Glu	Glu	Gln
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Lys	Thr	Glu	Asn	Gly	Lys	Asp	Lys	Glu	Gln	Lys	Gln	Thr	Asn	Thr	Asp

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755				760				765								
Lys	His	Arg	Arg	Ala	Arg	Asp	Arg	Ser	Arg	Ser	Ser	Ser	Ser	Ser	Ser	
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Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr
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Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser
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<213> Homo sapiens

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<210> 3992

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<212> PRT

<213> Homo sapiens

<400> 3992

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Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Ser Ala Pro Glu
  50              55              60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Tyr Leu Gln Glu Arg
  65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
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Thr Arg Glu Glu Ile Phe Arg Glu Ser Pro Ile Pro Ile Glu Ile
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<211> 72

<212> PRT

<213> Homo sapiens

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      20              25              30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35              40              45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
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<212> DNA

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<210> 3996

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3996

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		20						25					30		
Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
		35					40					45			
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		50				55					60				
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Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
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			100					105					110		
Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
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Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
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Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
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<212> DNA
<213> Homo sapiens

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Glu Ala Glu Ala Phe Ala Leu Tyr His Lys Ala Leu Asp Leu Gln Lys
      35           40           45
His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
      50           55           60
Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
      65           70           75           80
Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
      85           90           95
Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
      100          105          110
Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
      115          120          125
Lys Ile Gly His Val Ala Leu Arg Leu Ile Arg Ile Pro Leu Ala Arg
      130          135          140
His Ala Phe Glu Glu Gly Leu Arg Cys Asn Pro Asp His Trp Pro Cys
      145          150          155          160
Leu Asp Asn Leu Ile Thr Val Leu Tyr Thr Leu Ser Asp Tyr Thr Thr
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Lys Gly Leu Val Leu Lys Glu Lys Ile Phe Glu Glu Gln Pro Cys Leu
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 Ile Ile Leu His Arg Ile Ile Trp Gln Glu Glu Asp Thr Phe His Ser

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 Leu Pro Asn Met Pro Lys Leu Val Ile Pro Ser Ala Ala Thr Lys Phe
 2130 2135 2140
 Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro

2145		2150		2155		2160						
Lys	Gly	Ser	Ile	Ser	Glu	Thr	Lys	Gln	Lys	Ser	Ala	Ile
			2165				2170				2175	
Leu	Ser	Ala	Gln	Ser	Ala	Ala	Asn	Val	Arg	Lys	Glu	Ser
			2180				2185				2190	
Pro	Ala	Leu	Glu	Val	Leu	Glu	Thr	Ser	Ser	Gln	Glu	Ser
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<210> 4000

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala Ala Phe Val Val Val
 35          40          45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50          55          60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65          70          75          80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85          90          95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165          170          175          180
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
185          190          195
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
200          205          210
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
215          220          225
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
230          235          240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
245          250          255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
260          265          270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
290          295          300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
305          310          315          320
Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
340          345          350
Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
385          390          395          400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
405          410          415
Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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                420                425                430
Glu Glu Glu Ala Val Glu Lys Thr His Ser Thr Thr Ser Gln Ala Ile
      435                440                445
Ser Val Gly Met Arg Met Asn Ala Glu Phe Ile Met Leu Asn His Phe
      450                455                460
Ser Gln Arg Tyr Ala Lys Val Pro Leu Phe Ser Pro Asn Phe Ser Glu
      465                470                475
Lys Val Gly Val Ala Phe Asp His Met Lys Val Cys Phe Gly Asp Phe
      485                490                495
Pro Thr Met Pro Lys Leu Ile Pro Pro Thr Glu Ser Pro Val Cys Trp
      500                505                510
Arg His Arg Gly Asp Gly Gly Ala Gln Gly Glu Ala Gly Ala Ala Ala
      515                520                525
Gly Ala Gly Gly Pro Pro Val Gln Gly Ala Gly Arg Arg Pro Gly Gly
      530                535                540
Trp Gly Ala Ser Ala Glu Ala Gly Pro His Arg Gly Ala Thr Gly Gln
      545                550                555
Glu Gly Gln Ser Pro Val Lys Ile Trp Glu Thr Leu Asn Ser Glu Gly
      565                570                575
Cys Val Ser Ser Ala Pro Arg Thr His Pro Tyr Leu Pro Ser Leu Leu
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Val Glu Ala Glu Glu His Gly Pro Pro Gly Gly Ser Ser Gly
      595                600                605

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<210> 4001

<211> 1251

<212> DNA

<213> Homo sapiens

<400> 4001

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240
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720

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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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			20					25					30		
Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35					40					45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
		50				55					60				
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65					70				75				80		
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
			85						90				95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100						105				110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
		130					135				140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145					150				155					160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170				175		
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
			180				185					190			
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
		195					200					205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
		210					215					220			
Asp	Leu	Gly	Val	Thr	Thr	Ser	Val	Pro	Glu	Val	Pro	Met	Met	Glu	Lys

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225                230                235                240
Ile Leu Gln Lys Phe Thr Ser Met His Lys Ala Tyr Ser Pro Glu Lys
                245                250                255
Lys Ile Ser Ile Leu Leu Lys Thr Cys Lys Leu Ile Tyr Asp Ser Met
                260                265                270
Ala Leu Gly Asn Pro Gly Lys Pro Tyr Gly Ala Asp Asp Phe Leu Pro
                275                280                285
Val Leu Met Tyr Val Leu Ala Arg Ser Asn Leu Thr Glu Met Leu Leu
                290                295                300
Asn Val Glu Tyr Met Met Glu Leu Met Asp Pro Ala Leu Gln Leu Gly
305                310                315                320
Glu Gly Ser Tyr Tyr Leu Thr Thr Thr Tyr Gly Ala Leu Glu His Ile
                325                330                335
Lys Ser Tyr Asp Lys Ile Thr Val Thr Arg Gln Leu Ser Val Glu Val
                340                345                350
Gln Asp Ser Ile His Arg Trp Glu Arg Arg Arg Thr Leu Asn Lys Ala
                355                360                365
Arg Ala Ser Arg Ser Ser Val Gln Asp Phe Ile Cys Val Ser Tyr Leu
370                375                380
Glu Pro Glu Gln Gln Ala Arg Thr Leu Ala Ser Arg Ala Asp Thr Gln
385                390                395                400
Ala Gln Ala Leu Cys Ala Gln Cys Ala Glu Lys Phe Ala Val Glu Arg
                405                410                415
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<210> 4003

<211> 581

<212> DNA

<213> Homo sapiens

<400> 4003

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<210> 4004

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4004

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          20           25           30
Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
 65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
      130          135          140
Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
      145          150          155          160

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<210> 4005

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4005

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<210> 4006
<211> 222
<212> PRT
<213> Homo sapiens

<400> 4006
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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
180 185 190
His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
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<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

<400> 4007
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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

Gly	Lys	Arg	Lys	Arg	Ser	Ser	Ser	Glu	Asp	Ala	Glu	Ser	Leu	Ala	Pro
1				5				10					15		
Arg	Ser	Lys	Val	Lys	Lys	Ile	Ile	Gln	Lys	Asp	Ile	Ile	Lys	Glu	Ala
			20					25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
			35					40				45			
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
			50			55					60				
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
65						70				75				80	
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
				85					90				95		
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
			100					105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
			115				120					125			
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
			130			135					140				
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
145				150						155				160	
Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
				165					170				175		
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
			180					185					190		
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
			195				200					205			
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
			210			215					220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225				230						235				240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
				245				250					255		
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

260 265 270
 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
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 Tyr Asp
 290
 <210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens
 <400> 4009
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 120
 tcagaagaac cagtagttta taatccaaca acagctgcct tcattctgtga ctactctgtg
 180
 aatgaaaaaa ccataggcag tctctctaata gagttttact gttctgaaaa cacttctgtc
 240
 cctaacgaat ctaacaagat tcttggttaata aaagatgtac ctcagaaacc aggaggtgaa
 300
 accacacctt cagtaactga cttactaaat tatttttttg ctcagagat tcttactggg
 360
 gataaccaat attattgtga aaactgtgcc tctctgcaaa atgctgagaa aactatgcaa
 420
 atcacggagg aacctgaata ccttattctt actctcctga gattttcata tgatcagaag
 480
 tatcatgtga gaaggaaaaa tttagacaat gtatcactgc cactgggttt ggagttgcca
 540
 gttaaaagaa ttacttcttt ctcttcattg tcagaaaagt ggtctgtaga tgttgacttc
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 660
 tgcacaaaat tgggtg
 675
 <210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens
 <400> 4010
 Xaa Asp Leu Ser Leu Ala Phe Cys Pro Ser Ser Ser Leu Glu Asn Met
 1 5 10 15
 Ser Val Gln Asp Pro Ala Ser Ser Pro Ser Ile Gln Asp Gly Gly Leu
 20 25 30
 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

	85		90		95
Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp Leu Leu Asn Tyr Phe					
	100		105		110
Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln Tyr Tyr Cys Glu Asn					
	115		120		125
Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met Gln Ile Thr Glu Glu					
	130		135		140
Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe Ser Tyr Asp Gln Lys					
	145		150		155
Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val Ser Leu Pro Leu Val					
	165		170		175
Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe Ser Ser Leu Ser Glu					
	180		185		190
Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu Ser Glu Asn Leu Ala					
	195		200		205
Lys Lys Leu Lys Pro Ser Gly Thr Asp Glu Ala Ser Cys Thr Lys Leu					
	210		215		220

Val
225

<210> 4011

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4011

ctgcaggacg tgggtccgac agtcaagatg gcgggagcag ctaccagggc ttccctggag
60
tcggcccccac ggatcatgcg gctggtggcc gaatgcagcc gctccagggc ccgggcaggc
120
gagctgtggc tgccgcatgg gacagtggcc actcctgtgt tcatgccagt gggcacgcag
180
gccaccatga agggcatcac gaccgaacag ctggagcctc tgggttgccg catctgcctg
240
ggcaatacct accatctggg tctaaggccg ggaccgcagc tgatccagaa agccaacggg
300
ctccacggct tcatgaattg gcctcataat ctgctaaccg tttgcggtgg ggtttccctt
360
gacagcggcg gtttcagat ggtgtcgctg gtgtctctgt ccgaggtgac ggagaggggc
420
gtccgcttcc gctcccccta cgacggcaat gagaccctcg tgagcccgga gaaatccgtg
480
cagatccaga atgcgctggg ctcgacatc atcatgcagc tggacgacgt gggttagcgt
540
actgtgactg gggcacgtgt ggaggaggcc atgtacaggt caatccgctg gctggaccgg
600
tgcaattgag cccatcagcg gccggacaag cagaacctct tcgccattat ccagggtggg
660
ctggacgcag atctccgggc cacctgcctt gaagagatga ccaagcgaga cgtgcctggc
720
ttcgccatcg ggggcctgag cgggggtgag agcaagtgcg agttctggcg gatgggtggc
780
ctgagcacct ctcggtgcc gaaggacaag ccccgatata tgatgggggt tggctatgcc
840

actgatctgg tagtctgcgt ggctcttggga tgtgacatgt tgcactgcgt cttccccaca
 900
 cggacagcgc gctttggctc tgccctgggtg cccactggga acctgcagtt gaggaagaag
 960
 gtgtttgaga aggacttcgg ccccatagac cgggagtga cctgccccac gtgccaaaag
 1020
 cacagccggc ccttctcgca cgcactgctg cacagtgcga acacggccgc gctgcaccac
 1080
 ctacaggctcc acaacatcgc ctaccagctg cagctcatga gcgcgctccg caccagcatc
 1140
 gtggagaagc gcttccggga cttcgtgcgg gacttcatgg gcgccatgta cggggatccc
 1200
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 1260
 cctggcattg ggagagggag ggaggaagga agggagggag gggctggaag atactgaagg
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 1371

<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

Leu Gln Asp Val Val Pro Thr Val Lys Met Ala Gly Ala Ala Thr Gln
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 20 25 30
 Ser Arg Ser Arg Ala Arg Ala Gly Glu Leu Trp Leu Pro His Gly Thr
 35 40 45
 Val Ala Thr Pro Val Phe Met Pro Val Gly Thr Gln Ala Thr Met Lys
 50 55 60
 Gly Ile Thr Thr Glu Gln Leu Asp Ala Leu Gly Cys Arg Ile Cys Leu
 65 70 75 80
 Gly Asn Thr Tyr His Leu Gly Leu Arg Pro Gly Pro Glu Leu Ile Gln
 85 90 95
 Lys Ala Asn Gly Leu His Gly Phe Met Asn Trp Pro His Asn Leu Leu
 100 105 110
 Thr Leu Cys Gly Gly Val Ser Leu Asp Ser Gly Gly Phe Gln Met Val
 115 120 125
 Ser Leu Val Ser Leu Ser Glu Val Thr Glu Glu Gly Val Arg Phe Arg
 130 135 140
 Ser Pro Tyr Asp Gly Asn Glu Thr Leu Leu Ser Pro Glu Lys Ser Val
 145 150 155 160
 Gln Ile Gln Asn Ala Leu Gly Ser Asp Ile Ile Met Gln Leu Asp Asp
 165 170 175
 Val Val Ser Ser Thr Val Thr Gly Pro Arg Val Glu Glu Ala Met Tyr
 180 185 190
 Arg Ser Ile Arg Trp Leu Asp Arg Cys Ile Ala Ala His Gln Arg Pro
 195 200 205
 Asp Lys Gln Asn Leu Phe Ala Ile Ile Gln Gly Gly Leu Asp Ala Asp
 210 215 220
 Leu Arg Ala Thr Cys Leu Glu Glu Met Thr Lys Arg Asp Val Pro Gly

```

225                230                235                240
Phe Ala Ile Gly Gly Leu Ser Gly Gly Glu Ser Lys Ser Gln Phe Trp
                245                250                255
Arg Met Val Ala Leu Ser Thr Ser Arg Leu Pro Lys Asp Lys Pro Arg
                260                265                270
Tyr Leu Met Gly Val Gly Tyr Ala Thr Asp Leu Val Val Cys Val Ala
                275                280                285
Leu Gly Cys Asp Met Phe Asp Cys Val Phe Pro Thr Arg Thr Ala Arg
                290                295                300
Phe Gly Ser Ala Leu Val Pro Thr Gly Asn Leu Gln Leu Arg Lys Lys
305                310                315                320
Val Phe Glu Lys Asp Phe Gly Pro Ile Asp Pro Glu Cys Thr Cys Pro
                325                330                335
Thr Cys Gln Lys His Ser Arg Ala Phe Leu His Ala Leu Leu His Ser
                340                345                350
Asp Asn Thr Ala Ala Leu His His Leu Thr Val His Asn Ile Ala Tyr
                355                360                365
Gln Leu Gln Leu Met Ser Ala Val Arg Thr Ser Ile Val Glu Lys Arg
                370                375                380
Phe Pro Asp Phe Val Arg Asp Phe Met Gly Ala Met Tyr Gly Asp Pro
385                390                395                400
Thr Leu Cys Pro Thr Trp Ala Thr Asp Ala Leu Ala Ser Val Gly Ile
                405                410                415
Thr Leu Gly

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<210> 4013

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 4013

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cccttcaggga ggaacaccac gtggcaccgg gtgccactc ctgccctgca gccccctctc
120
agagcttccc ccattccccg caagcccgac cggctgccgt gccaacagct gctccagcag
180
gcccaggctg ccattcctcg aagcacctcc ttogaccgga agctgcccga tggcacgaga
240
agctcaccca gcaaccagtc atcctccagc gacctgggac cggcggggag cggaccctgg
300
agaccacaag tgggctaaga cgggtgccag tccccctac tgctcgaaca ccagggtcca
360
ggccctttgg aatgtgacgg agccaggggag aggggaagaca ccatggaagc aagcaggcag
420
ccggaaaaca aatggcatgg ccacacctcc aaagtccctg gttcctataa agaaagagct
480
ctgcagaag atggaagtgg caaagattcc cccaataagc tttctcacat tggggataaa
540
agttgctcca gtcactccag cagcaacacg ctctccagca acacctccag caacagtgcg
600
gacaagcact ttgggtctgg cgacctgatg gaccccgaa tactggggct gacctacatc
660

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aaaggggcct ccaccgacag tggcatcgac acggccccct gcatgcctgc caccalcctc
720
ggccctgtgc acctggcagg cagcaggctc ctgatccaca gccgggccga gcagtgggct
780
gatgctgccc acgtctctgg gctgacgac gagccagcca agttatattc tgtgcatggc
840
tacgcgtcca ccatctccgc cggcagtgct gcggaaggca gcattgggca tctcagtagg
900
atatcctctc attccagtgg ttctcaccat tcagggaagcc cttcagctca ctgttcaaaa
960
agtatggggt ctctggattc atccaaagtc tacatcgtgt ctcacagcag cggacaacag
1020
gttccccggg ccatgtccaa gccctaccac agacaagggg cagtgaacaa atatgtcatc
1080
ggctggaaga aatcggaggg cagcccaccc cccgaggagc ctgaagtgc tgaatgtccc
1140
gggatgtata gtgagttgga tgtcatgtcc acagcaactc agcatcagac agtggtaggga
1200
gatgctgttg cagagactca acatgttctg tctaagaag attttctgaa attgatgctt
1260
cctgacagcc ccttagtgga ggagggggcga agaaagtitt cgttctatgg gaacctgtct
1320
ccaaggaggt cgctttaccg cacgctgtct gacgagagca tctgcagcaa caggaggggg
1380
tcctcctttg gcagttcccg gagttccgtg cttgaccag
1419

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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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Xaa Ile Pro Met Val Glu Tyr Lys Leu Asp Ser Glu Gly Thr Pro Cys
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Glu Tyr Lys Thr Pro Phe Arg Arg Asn Thr Thr Trp His Arg Val Pro
20 25 30
Thr Pro Ala Leu Gln Pro Leu Ser Arg Ala Ser Pro Ile Pro Gly Thr
35 40 45
Pro Asp Arg Leu Pro Cys Gln Gln Leu Leu Gln Gln Ala Gln Ala Ala
50 55 60
Ile Pro Arg Ser Thr Ser Phe Asp Arg Lys Leu Pro Asp Gly Thr Arg
65 70 75 80
Ser Ser Pro Ser Asn Gln Ser Ser Ser Ser Asp Pro Gly Pro Gly Gly
85 90 95
Ser Gly Pro Trp Arg Pro Gln Val Gly Tyr Asp Gly Cys Gln Ser Pro
100 105 110
Leu Leu Leu Glu His Gln Gly Ser Gly Pro Leu Glu Cys Asp Gly Ala
115 120 125
Arg Glu Arg Glu Asp Thr Met Glu Ala Ser Arg His Pro Glu Thr Lys
130 135 140
Trp His Gly Pro Pro Ser Lys Val Leu Gly Ser Tyr Lys Glu Arg Ala
145 150 155 160
Leu Gln Lys Asp Gly Ser Cys Lys Asp Ser Pro Asn Lys Leu Ser His

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165      170      175
Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Asn Thr Leu Ser
180      185      190
Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
195      200      205
Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
210      215      220
Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
225      230      235      240
Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
245      250      255
Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
260      265      270
Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
275      280      285
Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
290      295      300
Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
305      310      315      320
Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
325      330      335
Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
340      345      350
Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
355      360      365
Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
370      375      380
Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
385      390      395      400
Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
405      410      415
Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Lys
420      425      430
Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
435      440      445
Leu Ser Asp Glu Ser Ile Cys Ser Asn Arg Arg Gly Ser Ser Phe Gly
450      455      460
Ser Ser Arg Ser Ser Val Leu Asp Gln
465      470

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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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ggcctgagcc agttgcaggt gaagacgtgg taccagaatc ggaggatgaa gtggaagaaa
120
atagtgtctg agggcggcgg cctggagtct cccaccaagc ccaaggggcg gcccaagaa
180
aactcaattc caacgagcga gcagcttact gagcaggagc gcgccaaagga tgcagagaaa
240

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cccgcgagg  tgcggggcga gccagcgac  agggagccgc aggactgagg gcggtatacg
300
gtgcggggcc tgggatgccc gcgccacccg cagccccctc actcgggcga aaccgcgag
360
ccggcccttc cgggtccaag aagtttactt cctaagcctt ttattatgat ctggaatgcg
420
gacaattggg gccaaaacgag gaaggacaca gacccaaaag ccagacccag gtcccagcgc
480
gcttcgtggc tctaacctgg gagactcgca tccagcccg  cggaagctac agtctctacc
540
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600
ccgccccgtc tggggcctgc cctcccgccc ggggagcctc caggcacaca ccgcttctg
660
gacgtcgggg acccagcggg tgggctcagc cacaacggcc tgagattgac ccggggcaac
720
ccgtcgcat  gcctggaggc cgggtccccg atctcgctgg ggccccacc ccctcgtgcg
780
aagacgggtga ctttttttcc aataaaatat tttatgacac aaa
823

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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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Arg Phe Glu Lys  Gln Lys Tyr  Leu Ser  Thr  Pro Asp Arg  Ile Asp Leu
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Ala Glu Ser  Leu Gly Leu Ser  Gln Leu Gln Val Lys Thr Trp Tyr Gln
      20              25              30
Asn Arg Arg Met Lys Trp Lys Lys  ile Val Leu Gln Gly Gly Leu
      35              40              45
Glu Ser Pro Thr Lys Pro Lys Gly Arg  Pro Lys Lys Asn Ser Ile Pro
      50              55              60
Thr Ser Glu Gln Leu Thr Glu Gln Glu Arg  Ala Lys Asp Ala Glu Lys
      65              70              75              80
Pro Ala Glu Val Pro Gly Glu Pro Ser Asp Arg  Ser Arg Glu Asp
      85              90              95

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<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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gggcacogcc gccctcaata gcagcaaccc gaagactatt gctacagtgc ccggatccgc
120
agcacogtcc tacagggcct gccctttggg ggcgtcccca ccgtgctggc cttggacttc
180
acgtgcttcc tcgccctgct gttcttatto tccatcctcc ggaaggtggc ctgggactat
240

```

ggcgcgcttg ccttggtgac agatgcagac aggcctcggc ggaggagag ggaccgagt
 300
 gaaacaggaat atgtggcttc agctatgcac ggggacagcc atgaccggta tgagcgcttc
 360
 accctttgtct ccagctccgt tgactttgac caaagggaca atgggtttctg ttcctggctg
 420
 acagccatct tcaggataaa ggacgatgag atccgggaca agtgtggggg cgagcgtgtg
 480
 cactacctgt cctttcagcg gcacatcatc gggctgctgg tggttgtggg cgtcctctcc
 540
 gtgggcatcg tgctgcctgt caacttctca ggggacctgc tggagaacaa tgcctacagc
 600
 tttggggagaa ccaccattgc caacttgaaa tcagggaaca acctgctatg gctgcacacc
 660
 tccttcgcct tcctgtatct gctgctcacc gtctacagca tgcgtagaca cacctccagg
 720
 atgcgctaca agggaggatga tctggtgaag cggacctctc tcatcaatgg aatctccaaa
 780
 tatgcagagt cagaaaagat caagaagcat tttgaggaag cctaccctca ctgcacagtt
 840
 ctggaagccc gcccggtgta caacgtggct cgcctaagt tcctcgatgc agagaggaag
 900
 aagcccgagc ggggaaagct gtacttcaca aacctccaga gcaaggagaa cgtgcctacc
 960
 atgatcaacc ccaagccctg tggccacttc tgctgctgtg tggtagcagg ctgtgagcag
 1020
 gtggaggcca ttgagtacta cacaagctg gagcagaagc tgaaggaaga ctacaagcgg
 1080
 gagaagggga aggtgaatga gaagcctctt ggcattggct ttgtcacctt ccacaatgag
 1140
 actatcacgg ccatcatcct gaaggacttc aacgtgtgta aatgccaggg ctgcacctgc
 1200
 cgtgggggag cagccccctc atcctgcagc gagtcccttc acatccctca ctggaccggg
 1260
 tcctatgccc ctgaccctca gaacatctac tgggagcacc tctccatccg aggccttcac
 1320
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 1380
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 1521

<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

Gln Gln Pro Glu Asp Tyr Cys Tyr Ser Ala Arg Ile Arg Ser Thr Val

1

5

10

15

Leu Gln Gly Leu Pro Phe Gly Gly Val Pro Thr Val Leu Ala Leu Asp

20										25										30									
Phe	Thr	Cys	Phe	Leu	Ala	Leu	Leu	Phe	Leu	Phe	Ser	Ile	Leu	Arg	Lys														
35										40						45													
Val	Ala	Trp	Asp	Tyr	Gly	Arg	Leu	Ala	Leu	Val	Thr	Asp	Ala	Asp	Arg														
50										55						60													
Leu	Arg	Arg	Gln	Glu	Arg	Asp	Arg	Val	Glu	Gln	Glu	Tyr	Val	Ala	Ser														
65										70						75													
Ala	Met	His	Gly	Asp	Ser	His	Asp	Arg	Tyr	Glu	Arg	Leu	Thr	Phe	Val														
85										90						95													
Ser	Ser	Ser	Val	Asp	Phe	Asp	Gln	Arg	Asp	Asn	Gly	Phe	Cys	Ser	Trp														
100										105						110													
Leu	Thr	Ala	Ile	Phe	Arg	Ile	Lys	Asp	Asp	Glu	Ile	Arg	Asp	Lys	Cys														
115										120						125													
Gly	Gly	Asp	Ala	Val	His	Tyr	Leu	Ser	Phe	Gln	Arg	His	Ile	Ile	Gly														
130										135						140													
Leu	Leu	Val	Val	Val	Gly	Val	Leu	Ser	Val	Gly	Ile	Val	Leu	Pro	Val														
145										150						155													
Asn	Phe	Ser	Gly	Asp	Leu	Leu	Glu	Asn	Asn	Ala	Tyr																		

450	455	460
Thr Leu Leu Leu Trp Cys Phe Ser Ala Leu Leu		Pro Thr Ile Gly Tyr
465	470	475 480

<210> 4019
 <211> 2408
 <212> DNA
 <213> Homo sapiens

<400> 4019
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 120
 ctgaaccacc gctgtgtatc tgctgtccag cgtgtgatg gggttgatgc ctgtggcgat
 180
 ggctctgatg aagcagggtg cagctcagac cccttccctg gctgacccc aagaccgctc
 240
 ccttccctgc cttgcaatgt caccctggag gacttctatg gggctcttct ctcctctgga
 300
 tatacacacc tagcctcagt ctcccacccc cagtctgcc attggctgct ggacccccat
 360
 gatggccggc ggctggccgt gcgcttcaca gccccggact tgggctttgg agatgcagtg
 420
 catgtgtatg acggccctgg gcccctgag agctcccgac tactgctgag tctcaccac
 480
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<211> 1690

<212> PRT

<213> Homo sapiens

<400> 4024

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Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Gly Lys Leu Val
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His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu Arg Glu
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Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val Leu Gly
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Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser Ile Tyr
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Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val
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Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile
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<213> Homo sapiens


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His His Glu Cys Asn Gln Cys Gly Lys Ala Phe Ser Thr Arg Ser Ser
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<211> 169

<212> PRT

<213> Homo sapiens

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<212> DNA
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<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

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Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
          355          360          365
Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
          370          375          380
Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
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<211> 487
<212> DNA
<213> Homo sapiens

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<400> 4033
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60
gggttttgat gggatagcag acaggtggat tgcagagctc cggaaagacc cagccgggtg
120
tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggctcaatt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
240
tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
aactttccac gccgcccctc aatggcttcc ttctctcccc acaagagcgc tgggccaagc
360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtca
420
ggacagcagc gggaggcctg cgcccccgcc cgccatgtgt ggggagcggg cctctccaag
480
ccagtcc
487

```

```

<210> 4034
<211> 94
<212> PRT
<213> Homo sapiens

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```

<400> 4034
Met Asn Thr Gly Ile Phe Pro Gly Trp Leu Leu Thr Ala Glu Gln Arg
1      5      10      15
Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
20     25     30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
35     40     45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

```

```

      50              55              60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
65              70              75              80
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
      85              90

```

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

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<400> 4035
nnncttaata gcagtgttat ggaattccat gtgaggcaca aacattcaga caatcctagc
60
aatgtttctgg aatcctatgt gagggacaaa cattcagacc ccagcagcaa tgttctggaa
120
tcctatggga gggacaaact ctacagaaaat agcaagagta ttttggaaac ctatctgagg
180
tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
240
gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
300
agtgttctgg aatccttttt ttttttgaag ctttcaatct ctt
343

```

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

```

<400> 4036
Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
1              5              10              15
Asp Asn Pro Ser Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
20              25              30
Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
35              40              45
Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
50              55              60
Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
65              70              75              80
Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
85              90              95
Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Leu Lys Leu Ser
100             105             110
Ile Ser

```

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037


```

tttttttttt ttttttttgg aaagagaaaa tatatttact attcattaag tggatgctggg
60
tcatacataaa ggtcttcatt ctcacccctct tcacgttgag taggctgagg aggaggaaga
120
ggaggagaag gggttggtct tgcgtgtctca gggcggcaga ggcagaagag aatctgagca
180
tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtcctctgc
240
tggaatgatg cctttacaca tctgtctgat ctgattgtct cactgttttc tgacttctct
300
tccctttcca gggttctagc ctgttcacatc agccccatga tggctgtgga catcgagtac
360
agatacaact gcattggctcc ttcccttgcgc caagagaggt ttgcctttaa gatctcacca
420
aagcccagca aaccactgag gccttgtatt cagctgagca gcaagaatga agccagtggg
480
atggtggccc cggctgtcca ggagaagaag gtgaaaaagc ggggtctcct cgcagacaac
540
caggggctgg ccttgacaat ggtcaaagtg ttctcggaat tcgatgaccc gctagatatg
600
ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
660
agctttgttc tggatttttc ccagccctct gcagattact tagactttag aaatcgactt
720
caggccgacc acgtctgcct t
741

```

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Met Ala Val Asp Ile Glu Tyr Arg Tyr Asn Cys Met Ala Pro Ser Leu
1      5      10      15
Arg Gln Glu Arg Phe Ala Phe Lys Ile Ser Pro Lys Pro Ser Lys Pro
20     25     30
Leu Arg Pro Cys Ile Gln Leu Ser Ser Lys Asn Glu Ala Ser Gly Met
35     40     45
Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys Lys Arg Val Ser Phe
50     55     60
Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val Lys Val Phe Ser Glu
65     70     75     80
Phe Asp Asp Pro Leu Asp Met Pro Phe Asn Ile Thr Glu Leu Leu Asp
85     90     95
Asn Ile Val Ser Leu Thr Thr Ala Glu Ser Glu Ser Phe Val Leu Asp
100    105    110
Phe Ser Gln Pro Ser Ala Asp Tyr Leu Asp Phe Arg Asn Arg Leu Gln
115    120    125
Ala Asp His Val Cys Leu
130

```

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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gctgcgcgcg tcggagaggc tcctggggaa actcccacgg cccagggact ttcgaaagca
120
gagcgaggag ccctcgacg cgctagtctg cgaagtgcgc ctcagcccg cacctgttcc
180
tccagcgccg ccgccttccc acccctcggg cccgcgcgcg tcgcgcgccc cgcccgctcc
240
tgcgatgaat ccggccctag gcaaccagac ggacgtggcg ggcccttcctg gccaacagca
300
gcgaggcgct ggagcgagcc gtgcgctgct gcacccaggc gtcctgtgtg accgacgagc
360
gcttcgcgga gggaggcccg gacgagcgta gcctgtacat aatgcgcgtg gtgcagatcg
420
cgggtcatgt cgtgtcttca ctcaccgtgg tcttcggcat cttcttcttc ggctgcaatc
480
tgctcatcaa gtccgagggc atgatcaact tctcgtgaa ggaccggagg cgtctaagg
540
aggtggaggc ggtggtcgtg gggccctact gaccgcacct ctgccccgc ggcaaccgct
600
cccagccctg cccaacttgc tagcccggtc gtgcacctca ctatcagaga ctgggcaagg
660
caaacctgtc ggagtcaatt atttctctcg acttcggcct ttcggaaaga agcgaccggt
720
ttctccctcg ccctctgaaa gtccctcatgc ctggcagtcg gagagagcgc ccagactct
780
gaactcagca gaaagtggca agaagagggc gattagggcg cagaactttg gaagtctgta
840
cttacttgga atgcggggag accgacgggt cgaaggccct tctccaccgc caggtgggccc
900
aagctctggg ggcaggtgga gaggggcggc aggggagaga cccagcgcca ctgatcgccct
960
tgtgaccgga agagtgcact gttaaaagcc acgcagcaga ctcatggggc ctcacaaatc
1020
cgtgtccggg tgcgtcccca ctcttctctc gtcctccccc tgccccgga ggggaggggc
1080
gataaatacc ttgtattgta acgtgcggtt ttaagaggtt ttgtgtttgt ttgcttgaat
1140
acaaatgttt gataagtctt tttctgcccc agtggcctgt ttgcctgcct gaggagtta
1200
agttttgtca ttgtggaaga aggggtgggg ggagggggag cctgcgaatt tgaacgggg
1260
gagttgttcc ttttagtgca tttcccaact ggtcttttgg gaggcgtcta gcgttctcgc
1320
tgccctggg acaaagacc agaatagaac tcgtagctcg tgactgcac gtttacgcca
1380
caaaagtgtc cttgacatcc gtgacaccgt ttgactttt tgtttttttc ttatttaaca
1440
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1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
Lys Ser Leu Ala Ala Arg Val Gly Glu Ala Pro Gly Glu Thr Pro
1 5 10 15
Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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60
ggtgagattc cagctgaatt aaggcgcgccg gccactgacc accggcagga gctaattgaa
120
tgtgttgcca attcagatga acagcttggt gagatgtttc tggaagaaaa aatccctctg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa ggccttgaa gaacaaagga gtccagcctc ttttagatgc tgttttagaa
300
tacctcccaa atccatctga agtcagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attcccacc attttagagg
420
ctggctttta aactggaggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
ggagagctaa agaagggtga caccatctat aacacaagga caagaaagaa agtacggttg
540
caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

```

Asp Leu Ile Glu Glu Arg Ala Ile Tyr Phe Asp Gly Asp Phe Gly Gln
 1           5           10           15
Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Thr
      20           25           30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35           40           45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
      85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130          135          140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
      165          170          175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
      180          185          190

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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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nntgcttggc ccagttcttc ccgcctcggc ccaacatgga cttagagaaa atttccatga
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tagcttccaa gggacaagggt gtcaacaatg tgccgaaaaa ggatagtgg ccagtggggc
120
ctcccaaaaa aagaccctaa agttaagggt gtccaatcag cagctgtaca agcttttctt
180
aaaagggaag aagaggagct gagacgaaaa gccttagagg agaaaaggag aaaaggagaa
240
ctagtgaaaa agcgaattga gctcaaacta gacaagaaa caagagctat ggccaaggag
300
acaaaggata atttccatgg ttacaatggg attcctattg aggaaaagtc aaagaagagg
360
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420
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480
cctcccaaa gttgaaagcaa accaaagggt tccttaaaag gtgccccacc acccatgaac
540
ttcactgatt tactcaggct ggctgagaaa aagcagtttg aaccagtgga aatcaaggta
600

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gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttagggagcg agaattccctt
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 gaacgaaaagc ataggagaaa aaaacttgag acagatggaa aactacctcc aactgtgtcc
 720
 aaaaaggcac ctctcggacg gaag
 744

<210> 4044

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4044

Met	Cys	Arg	Lys	Gly	Ile	Val	Gly	Gln	Trp	Gly	Leu	Pro	Lys	Lys	Asp
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Pro	Lys	Val	Lys	Gly	Val	Gln	Ser	Ala	Ala	Val	Gln	Ala	Phe	Leu	Lys
		20					25					30			
Arg	Lys	Glu	Glu	Leu	Arg	Arg	Lys	Ala	Leu	Glu	Glu	Lys	Arg	Arg	
		35				40				45					
Lys	Glu	Glu	Leu	Val	Lys	Lys	Arg	Ile	Glu	Leu	Lys	His	Asp	Lys	Lys
		50			55				60						
Ala	Arg	Ala	Met	Ala	Lys	Arg	Thr	Lys	Asp	Asn	Phe	His	Gly	Tyr	Asn
65				70					75			80			
Gly	Ile	Pro	Ile	Glu	Glu	Lys	Ser	Lys	Lys	Arg	Gln	Ala	Thr	Glu	Ser
			85					90				95			
His	Thr	Ser	Gln	Gly	Thr	Asp	Arg	Glu	Tyr	Glu	Met	Glu	Glu	Glu	Asn
			100			105					110				
Glu	Phe	Leu	Glu	Tyr	Asn	His	Ala	Glu	Ser	Glu	Gln	Glu	Tyr	Glu	Glu
		115				120					125				
Glu	Gln	Glu	Pro	Pro	Lys	Val	Glu	Ser	Lys	Pro	Lys	Val	Ser	Leu	Lys
		130			135					140					
Gly	Ala	Pro	Pro	Pro	Met	Asn	Phe	Thr	Asp	Leu	Leu	Arg	Leu	Ala	Glu
145					150				155						160
Lys	Lys	Gln	Phe	Glu	Pro	Val	Glu	Ile	Lys	Val	Val	Lys	Lys	Ser	Glu
			165					170				175			
Glu	Arg	Pro	Met	Thr	Ala	Glu	Glu	Leu	Arg	Glu	Arg	Glu	Phe	Leu	Glu
			180					185				190			
Arg	Lys	His	Arg	Arg	Lys	Lys	Leu	Glu	Thr	Asp	Gly	Lys	Leu	Pro	Pro
		195				200					205				
Thr	Val	Ser	Lys	Lys	Ala	Pro	Leu	Gly	Arg	Lys					
		210				215									

<210> 4045

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 4045

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 120
 aattgaaaaa aacttagaat tttaaagctg agaaagatt atcgctgtga tgattttgtg
 180

gttaatgaca ccaagctggg actggtacag aaagtcagag aacacttaca gaacttggaa
240
aactcagctt tcacagctga caggcataag aaaagaaaac ttttggaaaa ctcaacacta
300
aacagcaagt tattaaaagt aaatggaagc accactgcc a ttgtgccac aggccttcgg
360
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420
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480
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540
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600
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660
gaattenatg cgctaccttt tggaccacct acacttggan acttcagggc gggttcaacg
720
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780
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840
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900
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960
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1020
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1080
aaactaccga aggtgctatg cttacatttg aaaagatttc attggacagc atattttaaga
1140
aataaaagttg atacatacgt agaatttcca ctgagaggcc tagacatgaa atgtctacta
1200
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1380
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1440
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1500
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1560
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1620
agaaaacctc agcagatgtt ttgatttgct gctttagtgt taataattca atttttatag
1680
gtagtgttaa gaacttagtc ttatttgact ttttttttt atgttaatgt tttcagttct
1740
cactttgagg cacatttaca tcaatgcttt tgttctctc acatgtgaa agcaagatgt
1800

gttccttatt gtgaagagcg acacaactgc ctgctgcctt tccacagcta taatggacat
 1860
 cagggttgact ctaaatcaag gatcatgtgt gcacaatact tgtggccccac aaaatttcac
 1920
 aatgactgct gaggaatcat tctttttgcc tgtaaaatat aacaaagggc atcatthaag
 1980
 agaccaggta attactgctt gtctctcaag gctgctgtct ttatcagcac taactaaata
 2040
 aatttggttg ttcagttgta cttgtcctgc aaatacaaga attactctct ttgttggttt
 2100
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 2217

<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

Lys Lys Leu Arg Ile Leu Lys Leu Arg Lys Ser Tyr Arg Cys Asp Asp
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 Phe Val Val Asn Asp Thr Lys Leu Gly Leu Val Gln Lys Val Arg Glu
 20 25 30
 His Leu Gln Asn Leu Glu Asn Ser Ala Phe Thr Ala Asp Arg His Lys
 35 40 45
 Lys Arg Lys Leu Leu Glu Asn Ser Thr Leu Asn Ser Lys Leu Leu Lys
 50 55 60
 Val Asn Gly Ser Thr Thr Ala Ile Cys Ala Thr Gly Leu Arg Asn Leu
 65 70 75 80
 Gly Asn Thr Cys Phe Met Asn Ala Ile Leu Gln Ser Leu Ser Asn Ile
 85 90 95
 Glu Gln Phe Cys Cys Tyr Phe Lys Glu Leu Pro Ala Val Glu Leu Arg
 100 105 110
 Asn Gly Lys Thr Ala Gly Arg Arg Thr Tyr His Thr Arg Ser Gln Gly
 115 120 125
 Asp Asn Asn Val Ser Leu Val Glu Glu Phe Arg Lys Thr Leu Cys Ala
 130 135 140
 Leu Trp Gln Gly Ser Gln Thr Ala Phe Ser Pro Glu Ser Leu Phe Tyr
 145 150 155 160
 Val Val Trp Lys Ile Met Pro Asn Phe Arg Gly Tyr Gln Gln Gln Asp
 165 170 175
 Ala His Glu Phe Xaa Ala Leu Pro Phe Gly Pro Pro Thr Leu Gly Xaa
 180 185 190
 Phe Arg Ala Val Ser Thr Val Phe Pro Ala Gln Gln Phe Cys Arg Arg
 195 200 205
 Ile Leu Leu Cys Leu Gln Val Xaa Lys Cys Cys Ile Asn Gly Ala Ser
 210 215 220
 Thr Val Val Thr Ala Ile Phe Gly Gly Ile Leu Gln Asn Glu Val Asn
 225 230 235 240
 Cys Leu Ile Cys Gly Thr Glu Ser Arg Lys Phe Asp Pro Phe Leu Asp
 245 250 255
 Leu Ser Leu Asp Ile Pro Ser Gln Phe Arg Ser Lys Arg Ser Lys Asn

	260		265		270
Gln Glu Asn Gly Pro Val Cys Ser Leu Arg Asp Cys Leu Arg Ser Phe					
275		280		285	
Thr Asp Leu Glu Glu Leu Asp Glu Thr Glu Leu Tyr Met Cys His Lys					
290	295	300			
Cys Lys Xaa Lys Gln Lys Ser Thr Lys Lys Phe Trp Ile Gln Lys Leu					
305	310	315		320	
Pro Lys Val Leu Cys Leu His Leu Lys Arg Phe His Trp Thr Ala Tyr					
	325	330		335	
Leu Arg Asn Lys Val Asp Thr Tyr Val Glu Phe Pro Leu Arg Gly Leu					
	340	345		350	
Asp Met Lys Cys Tyr Leu Leu Asp Pro Glu Asn Ser Gly Pro Glu Ser					
	355	360		365	
Cys Leu Tyr Asp Leu Ala Ala Val Val His His Gly Ser Gly Val					
	370	375		380	
Gly Ser Gly His Tyr Thr Ala Tyr Ala Thr His Glu Gly Arg Trp Phe					
385	390	395		400	
His Phe Asn Asp Ser Thr Val Thr Leu Thr Asp Glu Glu Thr Val Val					
	405	410		415	
Lys Ala Lys Ala Asn Ile Leu Phe Tyr Val Glu His Gln Ala Lys Ala					
	420	425		430	
Gly Ser Asp Lys Leu					
435					

<210> 4047

<211> 809

<212> DNA

<213> Homo sapiens

<400> 4047

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aacttttccc ctgttactgt gaagaagagt atcatgggctc catttaatct ttgattactg
120
cctaaaaagca ttcattgccc cagtagttct taattgtctt ggaaatcatt ctcttgcaaa
180
cttcacattt ccatatcata ctttacttta cgctattact tcatgggctc ctgggcattt
240
ggctctgtttg tgtttctcct ttctctcttg aacaaagtca ggaataatgt gtcagtagga
300
gaaaggagga gctgaaggga gtaataaatt caagatcact tctgtcattt gtagtggctg
360
agggctagaa agatattctt cgggtgaagaa actccaaca ggttccatca gactgataca
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cacaagttaa catagacttt acactgtacg tacatgaaga caagacctcc tgtgaagcca
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atggctacca caaccagttt tgtccaaaat ggccattcaa ggacacctt gaaatgaaa
720

agagaaaaatg ttatcaccaa gttgtcctca gtggatttgg tcattttttt ttctatgac
780

ccttcaaagg cccgtgcttg ccttctaga

809

<210> 4048

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4048

Met	Thr	Lys	Ser	Thr	Glu	Asp	Asn	Leu	Val	Ile	Thr	Phe	Ser	Leu	Phe
1				5					10					15	
His	Phe	Lys	Gly	Val	Leu	Glu	Trp	Pro	Phe	Trp	Thr	Lys	Leu	Val	Val
			20					25					30		
Val	Ala	Ile	Gly	Phe	Thr	Gly	Gly	Leu	Val	Phe	Met	Tyr	Val	Gln	Cys
			35				40					45			
Lys	Val	Tyr	Val	Gln	Leu	Trp	Arg	Arg	Leu	Lys	Ala	Tyr	Asn	Arg	Val
			50			55					60				
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<213> Homo sapiens

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<213> Homo sapiens

<400> 4060

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Ala	Ala	Ile	Gln	Ala	Met	Glu	Arg	Lys	Ile	Glu	Ser	Gln	Ala	Ala	His

45	150										155										160																																																																																																																																																																		
Leu	Leu	Ser	Leu	Glu	Gly	Gln	Thr	Gly	Met	Ala	Glu	Lys	Lys	Leu	Ala	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000
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Trp	Ala	Val	Leu	Gly	Thr	Leu	Leu	Gln	Glu	Tyr	Gly	Leu	Leu	Gln	Arg	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855																																			

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<213> Homo sapiens

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			20					25					30		
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	35		40		45	
Thr	Val	Leu	Ser	Asp	Ile	Leu
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<400> 4064

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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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<210> 4066
<211> 210
<212> PRT
<213> Homo sapiens

<400> 4066
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20 25 30
Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
35 40 45
Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
50 55 60
Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
65 70 75
Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
80 85 90 95
Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

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          100              105              110
Lys Gly Tyr Glu Glu Asp Val Gly Arg Met Thr Met Ile Arg Val Val
      115              120              125
Ser His Thr Ser Val Pro Leu Leu Lys Asn Pro Asp Tyr Phe Phe
      130              135              140
Lys Glu Ala Asn Thr Thr Ile Tyr Val Ile Trp Gly Pro Phe Arg Asn
145              150              155              160
Met Arg Lys Asp Gly Asn Gly Ile Val Tyr Asn Met Leu Lys Lys Thr
      165              170              175
Val Gly Ile Tyr Pro Asn Ala Gln Ile Tyr Val Thr Thr Glu Lys Arg
      180              185              190
Met Ser Tyr Cys Asp Gly Val Leu Arg Arg Lys Xaa Gly Lys Asp Ser
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Thr Glu
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<210> 4067
<211> 1800
<212> DNA
<213> Homo sapiens

<400> 4067
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360
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420
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480
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540
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660
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720
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780
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900
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960

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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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			20					25					30		
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
			35				40					45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
			50			55					60				
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
65					70					75				80	
Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
			85					90				95			
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105				110			
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
			115				120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
			130			135					140				
Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

145					150					155					160
Pro	Val	Thr	Leu	Glu	Val	Leu	His	Gln	Ile	Phe	Ser	Lys	Phe	Gly	Thr
				185					170					175	
Val	Leu	Lys	Ile	Ile	Thr	Phe	Thr	Lys	Asn	Asn	Gln	Phe	Gln	Ala	Leu
				180				185					190		
Leu	Gln	Tyr	Ala	Asp	Pro	Val	Asn	Ala	His	Tyr	Ala	Lys	Met	Ala	Leu
				195			200					205			
Asp	Gly	Gln	Asn	Ile	Tyr	Asn	Ala	Cys	Cys	Thr	Leu	Arg	Ile	Asp	Phe
						215					220				
Ser	Lys	Leu	Thr	Ser	Leu	Asn	Val	Lys	Tyr	Asn	Asn	Asp	Lys	Ser	Arg
225					230					235					240
Asp	Phe	Thr	Arg	Leu	Asp	Leu	Pro	Thr	Gly	Asp	Gly	Gln	Pro	Ser	Leu
				245					250					255	
Glu	Pro	Pro	Met	Ala	Ala	Ala	Phe	Gly	Ala	Pro	Gly	Ile	Ile	Ser	Ser
				260				265						270	
Pro	Tyr	Ala	Gly	Ala	Ala	Gly	Phe	Ala	Pro	Ala	Ile	Gly	Phe	Pro	Gln
				275			280					285			
Ala	Thr	Gly	Leu	Ser	Val	Pro	Ala	Val	Pro	Gly	Ala	Leu	Gly	Pro	Leu
				290		295					300				
Thr	Ile	Thr	Ser	Ser	Ala	Val	Thr	Gly	Arg	Met	Ala	Ile	Pro	Gly	Ala
305					310					315				320	
Ser	Gly	Ile	Pro	Gly	Asn	Ser	Val	Leu	Leu	Val	Thr	Asn	Leu	Asn	Pro
				325					330					335	
Asp	Leu	Ile	Thr	Pro	His	Gly	Leu	Phe	Ile	Leu	Phe	Gly	Val	Tyr	Gly
				340				345					350		
Asp	Val	His	Arg	Val	Lys	Ile	Met	Phe	Asn	Lys	Lys	Glu	Asn	Ala	Leu
				355			360					365			
Val	Gln	Met	Ala	Asp	Ala	Asn	Gln	Ala	Gln	Leu	Ala	Met	Asn	His	Leu
				370		375					380				
Ser	Gly	Gln	Arg	Leu	Tyr	Gly	Lys	Val	Leu	Arg	Ala	Thr	Leu	Ser	Lys
385					390				395					400	
His	Gln	Ala	Val	Gln	Leu	Pro	Arg	Glu	Gly	Gln	Glu	Asp	Gln	Gly	Leu
				405				410						415	
Thr	Lys	Asp	Phe	Ser	Asn	Ser	Pro	Leu	His	Arg	Phe	Lys	Lys	Pro	Gly
				420				425					430		
Ser	Lys	Asn	Phe	Gln	Asn	Ile	Phe	Pro	Pro	Ser	Ala	Thr	Leu	His	Leu
				435			440					445			
Ser	Asn	Ile	Pro	Pro	Ser	Val	Thr	Val	Asp	Asp	Leu	Lys	Asn	Leu	Phe
				450		455					460				
Ile	Glu	Ala	Gly	Cys	Ser	Val	Lys	Ala	Phe	Lys	Phe	Phe	Gln	Lys	Asp
465					470				475					480	
Arg	Lys	Met		Ala	Leu	Ile	Gln	Leu	Gly	Ser	Val	Glu	Glu	Ala	Ile
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Ala	Leu	Ile	Glu	Leu	His	Asn	His	Asp	Leu						

<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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 120
 ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataccatc
 180
 ttatttgttg ccacaaagat aacctgatg actacacaga cttctactat gacatttgtc
 240
 ccttttgagg atacattgag ttggatgcta tttggctggc agcagcggtt ttcacatgat
 300
 gagaagaaaa gtgaagcaaa gtcaccttcc aatggcggtt ggtcattggc ctcaaagccg
 360
 gtagatgttg cctcagataa tgttaaaaag aaacatacta agaagaatga ataaatttac
 420
 gtgatgagct ctacaaggcc aaaaattttt ttcttatct acctgttata ttgtgcta
 480
 tttctatgt atgtgatgtg aatgaagac tatatatatg gaatggaggt gacagaaaga
 540
 aagaaattct ttgtttgagg gagacttccc cttctggat tgtatttgta gagtgttacg
 600
 agtgtatcat gtgattatgc ttaccggta taagagattc tgtgtgatt atttgaatag
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<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4070

Met	Ser	Tyr	Pro	Ala	Lys	Val	Thr	Leu	Leu	Gly	Ser	Val	Ile	Phe	Thr
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				20				25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
				35				40					45		
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
				50				55				60			
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
								70				75			80
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
				85				90						95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
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Glu

<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071


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180
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420
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601

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<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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Cys Ala Leu Val Pro Arg Leu Val Arg Met Lys Val Phe His Leu Ser
20     25     30
Leu Ser Gln Ser Val Val Leu Arg His His Trp Ile Leu Pro Phe Val
35     40     45
Gln Ala Leu Lys Ala Arg Met Thr Ser Phe His Arg Phe Phe Phe Thr
50     55     60
Ala Asn Gln Val Lys Ile Tyr Thr Asn Gln Glu Lys Thr Arg Thr Phe
65     70     75     80
Ile Gly Leu Glu Val Thr Ser Gly His Ala Gln Phe Leu Asp Leu Val
85     90     95
Ser Glu Val Asp Arg Val Met Glu Glu Phe Asn Leu Thr Thr Phe Tyr
100    105    110
Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val Gly Asp Ala
115    120    125
Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln Ala Ile Val
130    135    140
Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His Thr Glu Gln
145    150    155    160
Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro Leu Lys
165    170    175

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<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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 1860
 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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 Asn Pro Val Asp Ala Ile Tyr Gln Pro Ser Pro Leu Glu Pro Val Ile
 35 40 45
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu
 50 55 60
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu
 65 70 75 80
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser
 85 90 95
 Gly His Ser Pro Ser Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn
 100 105 110
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp
 115 120 125
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys
 130 135 140
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser
 145 150 155 160
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser
 165 170 175
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp
 180 185 190
 Asp Arg Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser
 195 200 205
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr
 210 215 220
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu
 225 230 235 240
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser
 245 250 255
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

260 265 270
 Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
 275 280 285
 Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
 290 295 300
 Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
 305 310 315 320
 Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
 325 330 335
 His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
 340 345 350
 Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
 355 360 365
 Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
 370 375 380
 Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
 385 390 395 400
 Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
 405 410 415
 Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
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<212> DNA

<213> Homo sapiens

<400> 4077

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<400> 4078

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<212> DNA

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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
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 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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 <213> Homo sapiens

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 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
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 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
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 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met
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<210> 4085

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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Val	Lys	Arg	Val	Thr	Ala	Asn	Asn	Leu	Glu	Thr	Phe	Ile	Phe	Ile	Leu
			20					25					30		
Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
			35				40				45				
Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
			50				55				60				
Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
						70				75			80		
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
						85			90				95		
Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
									105				110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
													125		
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
													140		
Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
													160		
Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
													175		
Met	Leu	Thr	Ala	Val	Asp	Trp	Thr	Leu	Thr	Lys	Asp	Glu	Lys	Val	Phe
													190		
Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

195	200	205
Phe Ala Ser Ala Leu Lys Arg Met Ser Val Leu Ala Ser Tyr Glu Lys		
210	215	220
Leu Gly Ser Thr Asp Leu Cys Tyr Ile Ala Val Lys Gly Ala Pro		
225	230	235
Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His		
	245	250
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly		
260	265	270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
275	280	285
Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		
290	295	300
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
305	310	315
Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		
	325	330
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		
340	345	350
Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg		
355	360	365
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
370	375	380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		
	405	410
His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		
420	425	430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		
435	440	445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		
450	455	460
Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Pro		
465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		
	485	490
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		
500	505	510
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		
515	520	525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		
530	535	540
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		
	565	570
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu		
580	585	590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
610	615	620
Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		

agcagtaaac tggagcgggc taatgacact atctgtgcc aatagagcgc
 840
 ctcaccatga gggatcaatga ctgggttgga accagtatga ctgtctaca ggagcagcag
 900
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 959

<210> 4088

<211> 319

<212> FRT

<213> Homo sapiens

<400> 4088

Arg	Gly	Ser	Leu	Glu	Lys	Ala	Leu	Phe	Gln	Leu	Leu	Lys	Val	Trp	Gly
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Gln	Trp	Ala	Glu	Gln	Thr	Arg	Arg	Leu	Gln	Arg	Leu	Asp	Val	Ser	Leu
		20						25					30		
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
		35					40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55				60					
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65				70						75					80
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90				95		
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100				105						110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
	115				120							125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
	130				135						140				
Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
145				150					155					160	
Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165						170				175		
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185				190			
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
	195					200						205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210				215					220					
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225				230					235					240	
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245					250					255		
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260					265					270			
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
	275					280						285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
	290				295						300				
Lys	Leu	Arg	Glu	Ser	Glu	Lys	Leu	Leu	Glu	Ala	Leu	Gln	Glu	Lys	
305					310					315					

<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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 60
 ctttgtcttg cgtctttatt tctatgttct cttgtctctg cacatgggga gaaaccacc
 120
 aaccctgtgg ggctggcccc tacacagttt ttaaggggta caggggaaggg aagaaacagg
 180
 caccatgtgg ggcagggggt ctgcttctat catatttcca ttttgttggt ttaggagatc
 240
 cttccaactc tactaacat tattttccag agaacaaaag aaaaactatg ctctccaaga
 300
 acatgtttcc tttgtaattt ttctgtcttc aaactttttc tggagagatg agtcatttga
 360
 cctgacattg agaataggct tgaagccctt tgaggagaca aaggagatag agtcagcatt
 420
 cctatctcca tgctctgaag atccaagtca cttgggttact gctccctggg ctgtctattt
 480
 tcactgttta tggaagatag agtacacctg t
 511

<210> 4090
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4090
 Met Trp Gly Arg Gly Ser Ala Ser Ile Ile Phe Pro Phe Cys Cys Phe
 1 5 10 15
 Arg Arg Ser Phe Gln Leu Ser Leu Thr Leu Phe Ser Arg Glu Gln Lys
 20 25 30
 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
 65 70 75 80
 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala
 85 90 95
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
 100 105

<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

<400> 4091
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gtccccagcg gctccggacg tgctacgggg tgcgagcgcg ggggagttcg gggcgcacga
120
caagggaagg cccccgggag ctctatatgg aggaaggagc ccagaatggt gtgcaccagg
180
aagacaaaaa ctttgggtgc cacttgcggtg atcctgagcg gcatgactaa catcatctgc
240
ctgctctacg tgggctgggt caccaactac atcgccagcg tgtatgtgcg ggggcaggag
300
cggcgcccc acaagaagct ggaggaagac aaaggggaca ctctgaagat tattgagcgg
360
ctggaccacc tggagaatgt catcaagcag cacattcaag gctataggag aaatttctcc
420
cttctgaatg tgtccaacta actctgttca cctgagaaat catattcccc agctctgggt
480
atocctgaat aaccacagga gaacagtctc aggccctgat aagtcagcta ttgcaagggg
540
gacctggctg gaagatatga aggaataata tcattcttga actaataagt tgagagatca
600
cagccttcag gggaccagaa gggaaggctg aacagagaag ggcaatttca cgttcgccat
660
gtccatatct ctatcgctcat gagccatctc accttacagg cagggaaagt ttgagcttag
720
agaatgggat gcgtcaagaa aaccgtggct ccccagctc tgttcttgga ttcaagtgcct
780
gttgtttcat cctgtgtaga ctggagtcag ggtctacaca gttggaattc tatggaacca
840
agatgctgtg tggcagatgg atgtggactc caactgtgac aatccagaag gccttggggg
900
cttgtttcat gaacagctcc ctgtaggac tctgttgggg tgggggattc taggggcac
960
tccgcagttt ttttctgaaa aaaaaacgaa tacaagttgg gcaggtgcaa caactgtgca
1020
tcagctcccc tcccagggtc ggctagcagt atgttgggtt accgtgaagca cttagcattg
1080
ttaagtgcag ataagtaaca agatgcaaca gcctctggcc aagttttgaa gattttgttt
1140
taaaagtatg ttttagatgt tgacattcat gattattaaa aggaacaaaa ctcaatttgg
1200
ggtctcaaga gccacaattc tagacttcta ggaatgcagg agccatgctc ttaagcttct
1260
cacctgctg ttttaatgag attaatgatt attttccact gagcacctac ctgtgatgtt
1320
cataaaaaag tgaataaat gactcacatg gagatttga aggatatcac tgtggaagat
1380
agatgttaac agcctctaga aatatgataa ttatcagcta tttgagatgc agtcactgta
1440
atgtgataac aagatgtgtt gtgcaggtag aaagcatgga gagaatggc acaaaagtag
1500
gttataagaa aaaaaaaaaa aaaaaa
1526

<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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His Gly Gly Tyr Thr Gly Ser Gly Pro Gly Phe Gly Glu Pro Arg Asp
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Ser Gly Ala Glu Val Pro Ser Gly Ser Gly Arg Ala Thr Gly Cys Glu
 20           25           30
Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35           40           45
Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50           55           60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65           70           75
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85           90           95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
100           105           110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
115           120           125
Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
130           135           140
Ser Asn
145

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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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ggcagggggg ggtgtgcagc ggaaccatgc acataggcgc ccacgccagc taccctcccc
120
gaggaaaaga ggccggggcg cgctgggggg tgagagcatg agggaggccg gggggggcgt
180
cttgagcgc tgctagggag cggtgccgc gcacaccgc ctgggcccgg cggagggcgg
240
ggagcgggga ggtcgcgcct cggcgagcgc accgcgggga gctgttctga ttccgacgc
300
gcacctaggg gcccgagaca gccccgcgcc cggcgcgcgc ccgacatggg caacgcaggg
360
agcatggatt cgcagcagac cgatttcagg gcgcacaacg tgcctttgaa gctgccgatg
420
ccagagccag gtgaactgga ggagcgattt gccatcgtgc tgaacgctat gaacctacct
480
cctgacaaag ccagggttact cggcagtat gataatgaga aaaaatggga actgatttgt
540
gatcaggaac gattccaggt gaagaatcct ccccatatat acattcaaaa gctcaaaagg
600
tatctggatc cagctgtaac caggaagaaa ttcagacggc gtgttcaaga atctacacaa
660
gtgctaagag aactggaaat ttctttaaga actaaccaca ttggatgggt cagagaattt
720

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ctgaatgaag aaaacaaagg tcttgatgtt ctagtggaaat atctctcatt tgcacagtac
 780
 gcggtactact ttgactttga aagtgtggag agtactgtgg agagctcggg ggacaaatca
 840
 aagcccctgga gtagggtccat cgaggacctg cacagagggg gcaacctgcc ctcacctgtg
 900
 ggcaacagtg tctcccgcgc tgggaagacat tctgcaactgc gatataatac attgccaagg
 960
 agaagaactc tgaaaaattc aagattagtg agtaagaaaag atgatgtgca tgtctgtatc
 1020
 atgtgttttac gtgccatcat gaattatcag tatgggttca acatgggtcat gtctcatcca
 1080
 cagcgtgtca atgagattgc actaagcctg aacaacaaga atcccagaac aaaagccctt
 1140
 gtcttagaac tgttggcagc cgtttgtctt gtcagaggcg ggcatgaaat cattttatca
 1200
 gcatttgata actttaaaga ggtttgtgga gaaaacagc gctttgagaa gttgatggaa
 1260
 catttcagga atgaagacaa taacatagat tttatggtgg cttctatgca gtttattaat
 1320
 attgtagtcc attcagtaga agatatgaat ttcagagtcc acctgcagta tgaatttacc
 1380
 aaattaggcc tggacgaata cttggacaag ctgaaacaca ctgagagtga caagcttcaa
 1440
 gtccagatcc aggccttacct ggacaatgtt tttgatgtag gagctctact ggaagatgct
 1500
 gaaactaaga atgctgcag
 1519

<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

Met Gly Asn Ala Gly Ser Met Asp Ser Gln Gln Thr Asp Phe Arg Ala
 1 5 10 15
 His Asn Val Pro Leu Lys Leu Pro Met Pro Glu Pro Gly Glu Leu Glu
 20 25 30
 Glu Arg Phe Ala Ile Val Leu Asn Ala Met Asn Leu Pro Pro Asp Lys
 35 40 45
 Ala Arg Leu Leu Arg Gln Tyr Asp Asn Glu Lys Lys Trp Glu Leu Ile
 50 55 60
 Cys Asp Gln Glu Arg Phe Gln Val Lys Asn Pro Pro His Thr Tyr Ile
 65 70 75 80
 Gln Lys Leu Lys Gly Tyr Leu Asp Pro Ala Val Thr Arg Lys Lys Phe
 85 90 95
 Arg Arg Arg Val Gln Glu Ser Thr Gln Val Leu Arg Glu Leu Glu Ile
 100 105 110
 Ser Leu Arg Thr Asn His Ile Gly Trp Val Arg Glu Phe Leu Asn Glu
 115 120 125
 Glu Asn Lys Gly Leu Asp Val Leu Val Glu Tyr Leu Ser Phe Ala Gln
 130 135 140
 Tyr Ala Val Thr Phe Asp Phe Glu Ser Val Glu Ser Thr Val Glu Ser

```

145          150          155          160
Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
Ala Glu Thr Lys Asn Ala Ala
385          390

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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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60
agggtcagat agtgggggggt ggggttcagct ccactgtcca ggtgaggaaa ctgaggctga
120
agagagatca agtagcatcc ccagcgaaat ctgaggccctc tggaggcgcc tgtgcacgtg
180
tgtctggaag tgtgtgtcca ggcagcatat ctgcatgtgt gtgcctgtcc agacagcata
240
tctgtgcacg cgt
253

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<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

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Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
 1           5           10           15
Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val
 20           25           30
Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35           40           45
Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
 50           55           60
Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
 65           70           75           80
Cys Ala Arg

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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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ctgggaacgc tgccgcgcac tggcacggca ggggcgcgag ccaggctgca cgattcactg
120
cgtgctgtcc tcactgttcc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt
180
gcacctcttg atgaaagcat gctgggagct gtccaagtca agaggaggac aaagaaaaag
240
attcctttct tggcaactgg aggtcaaggc gaattattaa cttatatctg cctgtcagtg
300
acaaacaaga aaccacaca ggcgtccatc acaaaggcca aacagtttga aggctccaca
360
tcatttgttc ggagatcaca gtgatgtctc gagcagcttc gccagggttaa tggtatcgat
420
cctaattggg attcggcaga gtttgatttg ttgtttgaaa atgcttttga ccagtggtga
480
gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg
540
tacctcacgg acaggaagcc agagtattatt aactgccaat ccaaaattat gggaggaaac
600
agcactctcc attcagctgc tgacagcgtg accagcgcag tcagaaggcc aagccaggcc
660
ttgaatgagc gtggagagcg attagccga gcagaggaga agacagaaga cctgaagaac
720
agcgcaccagc agttttgcaga aactgcgcac aagcttgcca tgaagcaca atgtgtagaa
780
actgcctatc ctggtgactc ttcttaagag aaactgaaga gtttgttcag cagtttttcc
840
aagaattcgg gacctccgct tgcttctttt ttccaatat ttggacactt agagtggttt
900
ttgttttttc ttttcagatg ttaatgtgaa agaaaagggtg ttgcattttt acatttcctt
960
aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctcttc
1020

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ccactgtgtg tatgtgtgta tatgtatgtt ttgaatatgt tttcttttatt aaaaaatatt
 1080
 tttttagtatt tgaatatgaa atttggacca aatgataaac tgcgctgagt ctaaactggc
 1140
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggt gacatcagat
 1200
 gttatttttc ctagatgaaa ataaaagtca agcagtgatt agtttcactc actgtcctag
 1260
 ctacacttaa ttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa
 1320
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 1380
 gttca
 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50					55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
	65				70					75				80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120						125		
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
	145				150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165					170						175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
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Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
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Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
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 <211> 511
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
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 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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<213> Homo sapiens

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 Val Gln Asn Ser Ser Trp Gly Leu Gln Leu Leu Gly Glu Thr Gln Gly
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 Leu Leu Leu His Ser Leu Gln Gly Leu Ser Arg Gln Arg Pro Trp Gly
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<212> DNA

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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
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Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
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Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
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Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
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Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
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Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Met	Ile
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Leu	Ser	Arg	Asp	Ser	Asp	Val
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Pro	Leu	Gln	Cys	Ala	Ser	Leu
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Met	Ser	Lys	Ala	Leu	Gln	Asp
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Ile	Pro	Cys	Val	Asn	Ala	Val
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Lys	Tyr	Val	Ser	Gln	Asn	Cys
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Asp	Gly	Arg	Leu	Leu	Pro	Glu
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Phe	Glu	Cys	Asn	His	Ala	Cys
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Val	Val	Gln	Asn	Gly	Leu	Arg
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Asp	Met	Gly	Trp	Gly	Val	Arg
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Phe	Val	Cys	Glu	Tyr	Val	Gly
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Val	Arg	Glu	Glu	Asp	Ser	Tyr
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Glu	Val	Tyr	Cys	Ile	Asp	Ala
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Ile	Asn	His	His	Cys	Glu	Pro
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Ala	His	Gln	Asp	Leu	Arg	Phe
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Leu	Ile	Glu	Ala	Gly	Glu	Gln
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Trp	Asp	Ile	Lys	Gly	Lys	Leu
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Cys	Arg	His	Ser	Ser	Ala	Ala
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Ala	Thr	Pro	Tyr	Glu	Thr	Pro
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<210> 4106
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<212> PRT
<213> Homo sapiens

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          35          40          45
Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu				
	100	105		110
Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala				
	115	120		125
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro				
	130	135		140
Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr				
145	150	155		160
Gly Leu Gln Val Pro Ser Ala Val Arg Cys Leu Gln Lys Arg Gly Ser				
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Ala Thr Ser Ser Ser Asn Thr Ser Leu Thr				
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<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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 Ser Phe Tyr Leu Glu Ile Phe Asp Glu Arg Ala Phe Ser Met Asp Asp
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 130 135 140
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 145 150 155 160
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 Ala Met Val Met Pro Pro Gln Pro Val Val Leu Met Pro Thr Val Tyr
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 Gln Gln Gly Val Gly Tyr Val Pro Ile Thr Gly Met Pro Ala Val Cys
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 Ser Pro Gly Met Val Pro Val Ala Leu Pro Pro Ala Ala Val Asn Ala

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<211> 1637

<212> DNA

<213> Homo sapiens

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<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly	Leu	Pro	Arg	Thr	Ala	Ile
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Lys Cys Asp Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu
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Ile Pro Ala Tyr Ser Arg Trp Gln Asp Pro Ile Phe Ser Leu Ala Thr
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Pro Leu Arg Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys
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Arg Ser Arg Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser
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<210> 4111

<211> 2599

<212> DNA

<213> Homo sapiens

<400> 4111

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<211> 775

<212> PRT

<213> Homo sapiens

<400> 4112

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 65 70 75 80
 Ile His Thr Glu Pro Gln Leu Ser Ala Ala Leu Glu Tyr Val Arg Ser
 85 90 95
 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly
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 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
 115 120 125
 Ala Ile Asn Arg His Arg Pro Gln Leu Leu Val Glu Arg Tyr His Phe
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 145 150 155 160
 Asp Gly Lys Met Ile Lys Asn Glu Val Asp Met Gln Val Leu His Leu
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 <211> 1894
 <212> DNA
 <213> Homo sapiens

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<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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65					70				75					80	
Leu	Gln	Leu	Pro	Ser	Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys	Leu
				85					90					95	
Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu
			100					105					110		
Asp	His	Arg	Thr	Asp	Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser	Asp
			115				120					125			
Ile	Gln	Val	His	Val	Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp	Ala
			130			135					140				
Cys	Ser	Ser	Ser	Leu	Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Ala	Cys	Ser
145				150					155					160	
Gln	Cys	Met	Arg	Lys	Val	Gly	Leu	Trp	Gly	Phe	Gln	Gln	Ile	Glu	Ser
				165					170					175	
Ser	Met	Thr	Asp	Leu	Asp	Ala	Ser	Phe	Gly	Leu	Thr	Ser	Ser	Pro	Ile
			180				185						190		
Pro	Gly	Leu	Glu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu	Ser
			195				200					205			
Pro	Arg	Arg	Met	Met	Thr	Arg	Ser	Gln	Asp	Ala	Thr	Phe	Ser	Pro	Gly

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      210              215              220
Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
225              230              235              240
Ser Trp Asp Ser Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala
      245              250              255
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly
      260              265              270
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
      275              280              285
Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
      290              295              300
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
305              310              315              320
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
      325              330              335
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
      340              345              350
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
      355              360              365
Leu Ser Glu Lys Ser Arg Lys Val Phe Arg Ile Phe Arg Gln Trp Glu
      370              375              380
Ser Leu Cys Ser Cys
385

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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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120
accaaatatt gtacagagtg tgccagtagg cttttgcaac tggactgaaa ataccgtcct
180
ttctctcca caggggaaag tggaagtga agctgggaaa gaaggtatga agtttgaagc
240
gagcgccctc tcactactat gcgtgatggc cctgacagcc tctccagggt aaaaataagt
300
ccctcctcgc ccatgtggct tgaatcactc agactctctc agtcgaagcg accggattga
360
cgccgtcaca ccaacactgg ggagcagcaa taaccagctc aattcttcgc tctccaagt
420
ctacatcccc gattactcgg tgcgagccct ttcgcatctg cagtttgta agatctcaag
480
acagcaatc caaaatgcct tgatggcatc cgggatggac aaaaccccc agtcttcaga
540
cagtgaatac actaaaatcg aattgactct tacggagctg catgacgggt tgccagagca
600
gacagccaac ctgctcaacg aacagaactg tgtgacgcac agtaaggcca accacagcct
660
gcacaacgaa ggcgccatct aggcgcgctt ggctgcaccc gccacggccc gcaccggccc
720

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agtcgccgagg gcccgccct gtctgcccac gacttcaactg gtgtgagctt gtccgccatg
 780
 ctgtaccctg caacatcctg agaccaaga ccttgtgccc tteccaggag ccgcgaggaga
 840
 ggacagttag ggaggaatgg aaacgagaga tgtgaagttag gcagccgggg catggcgcttc
 900
 aagatttttg agatgaactg attccgccca aatagaatca tgttttatatt ttcagctctc
 960
 ccttttatca ttattcacac tcctctgccc tgcatttgca tgaagttgaa aattgttgcg
 1020
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 1056

<210> 4116

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4116

Met	Lys	Phe	Glu	Ala	Ser	Ala	Phe	Ser	Tyr	Tyr	Gly	Val	Met	Ala	Leu
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Thr	Ala	Ser	Pro	Gly	Glu	Asn	Lys	Ser	Pro	Pro	Arg	Pro	Cys	Gly	Leu
			20					25					30		
Asn	His	Ser	Asp	Ser	Leu	Ser	Arg	Ser	Asp	Arg	Ile	Asp	Ala	Val	Thr
		35				40					45				
Pro	Thr	Leu	Gly	Ser	Ser	Asn	Asn	Gln	Leu	Asn	Ser	Ser	Leu	Leu	Gln
	50					55				60					
Val	Tyr	Ile	Pro	Asp	Tyr	Ser	Val	Arg	Ala	Leu	Ser	Asp	Leu	Gln	Phe
65				70				75						80	
Val	Lys	Ile	Ser	Arg	Gln	Gln	Tyr	Gln	Asn	Ala	Leu	Met	Ala	Ser	Arg
			85					90					95		
Met	Asp	Lys	Thr	Pro	Gln	Ser	Ser	Asp	Ser	Glu	Asn	Thr	Lys	Ile	Glu
		100						105					110		
Leu	Thr	Leu	Thr	Glu	Leu	His	Asp	Gly	Leu	Pro	Asp	Glu	Thr	Ala	Asn
	115					120					125				
Leu	Leu	Asn	Glu	Gln	Asn	Cys	Val	Thr	His	Ser	Lys	Ala	Asn	His	Ser
	130				135						140				
Leu	His	Asn	Glu	Gly	Ala	Ile									
145					150										

<210> 4117

<211> 973

<212> DNA

<213> Homo sapiens

<400> 4117

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 120
 tgggtctcct gggcaccact cagagctctg tgccctgtggg tccaacaagt ccagagctgt
 180
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 240

cctgcctggc tggggactaa gcagtgtcca gagtgggggc agggagaaca gagggcttga
 300
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 360
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 420
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 480
 tcaccgtcac cgggagaagc taccocgccc ccttcctcag ggatctccgc agtgaagcct
 540
 cctetaagga gtctaggac tctcccttta gagtgggga caggggggtg tgtttgtgct
 600
 ggccctgggtc caaatactcc aggggtgtcag ctccatcccc ctgctgtect ctgtcccag
 660
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 720
 ggccggagga ctggctgcaa aagtcacccc cctctagacc tctgcaacca cagaatcccc
 780
 agcccaaagg cctttgctgg ttgagttga attcagtggt gactgaagga aaaacatata
 840
 tattcacacc tcagagtgcac catccgagct cctgggtgact ggaaaaaaga aatgggtcac
 900
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 960
 tcccttcacg cgt
 973

<210> 4118
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4118
 Gly Gly Arg Gln Arg Pro Val Ser Gly Tyr Pro Pro Pro Ser His Ala
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 His Leu Gly Pro Gln Ala Gln Pro Ala Val Gln Ala His Asp Trp Pro
 20 25 30
 Gly Cys Gly Arg Trp Pro Gln Pro Pro Gly Gly Ile Leu Glu Trp Glu
 35 40 45
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro
 50 55 60
 Gly Glu Ala Thr Pro Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro
 65 70 75 80
 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly
 85 90 95
 Cys Val Cys Ala Gly Leu Gly Pro Asn Thr Pro Gly Cys Gln Leu His
 100 105 110
 Pro Pro Ala Val Leu Cys Pro Gln Gly Leu Gly Arg His Gln Arg Leu
 115 120 125

<210> 4119
 <211> 649
 <212> DNA
 <213> Homo sapiens

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<400> 4119
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120
accaaatttct tgaactacaa aaatgatcga accataaaaa tcaggaacac ctctgggtcc
180
agtcagacta aagatcagag gatccctggg cgtccagcct tccaacatcc ctgaccttct
240
gaagtctaaag atctctagct gggatgtgct tcttctcctt tcttcttact gtaacacctc
300
ttcctacaga gctctggcct ctctacatgg attgggaacc agatgttgtc cctgagcagc
360
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420
gtgagcaacc cagcaacatc caccatcttc ctgcccatcc tgtgcagcct ggtgagtaat
480
gcgagagctcc cagacatcca gacaggctgt cccaggggcc tggagtggca ggctctggct
540
agggcagcctt ccgtagctgt aggtctctct ctggttactg cccacagcct tcactaattg
600
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649

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<210> 4120

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4120

His	Leu	Phe	Leu	Gln	Ser	Ser	Gly	Leu	Ser	Thr	Trp	Ile	Gly	Asn	Gln
1				5					10					15	
Met	Leu	Ser	Leu	Ser	Ser	Leu	Pro	Pro	Trp	Ala	Val	Thr	Leu	Leu	Ala
			20					25					30		
Cys	Ile	Leu	Val	Ser	Ile	Val	Thr	Glu	Phe	Val	Ser	Asn	Pro	Ala	Thr
		35				40					45				
Ile	Thr	Ile	Phe	Leu	Pro	Ile	Leu	Cys	Ser	Leu	Val	Ser	Asn	Ala	Glu
	50				55					60					
Leu	Pro	Asp	Ile	Gln	Thr	Gly	Cys	Pro	Arg	Gly	Leu	Glu	Trp	Gln	Ala
65				70				75					80		
Trp	Leu	Arg	Ala	Ala	Ser	Val	Ala	Val	Gly	Ser	Pro	Leu	Val	Thr	Ala
			85					90					95		
His	Ser	Leu	His												
			100												

<210> 4121

<211> 2490

<212> DNA

<213> Homo sapiens

<400> 4121

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120
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180
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240
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300
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360
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420
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480
gccttggtcg gggagtatgg agcagtcact tacagaaaaa ccaagagagg tcccaagcaa
540
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600
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660
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720
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1020
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1080
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1140
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1380
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1560
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1620
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1680

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 1740
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 1800
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 1860
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 1920
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 1980
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 2040
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 2100
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 2160
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 2280
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 2340
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 2460
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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

Arg	Ala	Arg	Gly	Cys	Ala	Gly	Pro	Cys	Gly	Arg	Ala	Val	Phe	Leu	Ala
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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Glu	Lys	Gln	Ala	Glu	Ser	Arg
		20						25				30			
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35					40				45				
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Glu	Gln	Gly	Phe
		50			55				60						
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
				70				75						80	
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
			85					90						95	
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
			100					105				110			
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
			115				120				125				
Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
		130				135					140				
Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val


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145          150          155          160
Ala Leu Ala Gly Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg
          165          170          175
Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg
          180          185          190
Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
          195          200          205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
          210          215          220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
          225          230          235
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
          245          250          255
Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
          260          265          270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
          290          295          300
Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
          305          310          315
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
          325          330          335
Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
          340          345          350
Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
          355          360          365
Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
          370          375          380
Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
          385          390          395
Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
          405          410          415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
          420          425          430
Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
          435          440          445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
          465          470          475
Cys Gln Ala Ala Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
          485          490

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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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120

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 240
 aatctcgctt ctttctgctg cggcgggcggc ttctcgagtc ctccccgacg cgtcctctag
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 420
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 480
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 900
 gaataattca tgaataattaa ttataaacca cattattcta atcagaaatg tgaacattta
 960
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 1080
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 1095

<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

Met	Ser	Ala	Ala	Gly	Ala	Gly	Ala	Gly	Val	Glu	Ala	Gly	Phe	Ser	Ser
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Glu	Glu	Leu	Leu	Ser	Leu	Arg	Phe	Pro	Leu	His	Arg	Ala	Cys	Arg	Asp
		20						25				30			
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
		35					40					45			
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
	50					55				60					
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val	Arg	Ala
65				70					75					80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
				85					90					95	
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

	100		105		110
Gln	Ala	Gly	Ala	Asn	Ile
	115		120		125
Ile	His	Lys	Ala	Ala	Arg
	130		135		140
Val	Ala	Asn	Gly	Ala	His
145			150		155

<210> 4125

<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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 120
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 180
 atgagctcga ttccaggactg ggggtgaagag gttagaggaag gagctgttta ccatgtcacc
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 300
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 360
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 420
 gactttacct atatcagcat ctttctttca acgtacagag gctttgcctc cactaaagaa
 480
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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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 Gln Asp Trp Gly Glu Glu Val Glu Glu Gly Ala Val Tyr His Val Thr
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Thr Leu Thr Lys Cys Val Val Ser Thr Ile Leu Gly Gly Lys Glu Leu
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Lys Thr Gln Gln Arg Ala Lys Ile Ile Glu Lys Trp Ile Asn Ile Ala
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Ser Ser Leu Ile Asn Pro Leu Ser Ser Pro Pro Ser Cys Asn Asn Asn
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      675      680      685
Val Leu Pro Pro Val Tyr Asn Gln Gln Asn Glu Asp Thr Cys Ile Ile
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<210> 4127

<211> 2189

<212> DNA

<213> Homo sapiens

<400> 4127

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<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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Ile	Arg	Ile	Arg	Trp	Leu	Gln	Ile	Val	Val	Arg	Asn	Asp	Tyr	Tyr	Pro
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Asp	Leu	His	Arg	Val	Arg	Arg	Phe	Leu	Glu	Ser	Gln	Met	Ser	Arg	Met
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<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 4130

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 50 55 60
 His Leu Gln Pro Ile Arg Asn Met Ser Val Ser Arg Thr Met Glu Asp
 65 70 75 80
 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val
 85 90 95
 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg
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 Glu Val Ala Gln Met Leu Lys Ser Lys His Gly Gly Asn Tyr Leu Leu
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 Phe Asn Leu Ser Glu Arg Arg Pro Asp Ile Thr Lys Leu His Ala Lys
 130 135 140
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys
 145 150 155 160
 Ile Cys Ser Ile Cys Lys Ala Met Asp Thr Trp Leu Asn Ala Asp Pro
 165 170 175
 His Asn Val Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly
 180 185 190
 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala
 195 200 205
 Asp Gln Ala Leu Asp Arg Phe Ala Met Lys Arg Phe Tyr Glu Asp Lys
 210 215 220
 Ile Val Pro Ile Gly Gln Pro Ser Gln Arg Arg Tyr Val His Tyr Phe
 225 230 235 240
 Ser Gly Leu Leu Ser Gly Ser Ile Lys Met Asn Asn Lys Pro Leu Phe
 245 250 255
 Leu His His Val Ile Met His Gly Ile Pro Asn Phe Glu Ser Lys Gly
 260 265 270
 Gly Cys Arg Pro Phe Leu Arg Ile Tyr Gln Ala Met Gln Pro Val Tyr
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 Thr Ser Gly Ile Tyr Asn Ile Pro Gly Asp Ser Gln Thr Ser Val Cys
 290 295 300
 Ile Thr Ile Glu Pro Gly Leu Leu Leu Lys Gly Asp Ile Leu Leu Lys

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305          310          315          320
Cys Tyr His Lys Lys Phe Arg Ser Pro Ala Arg Asp Val Ile Phe Arg
          325          330          335
Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
          340          345          350
Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
          370          375          380
Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
          405          410          415
Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Asp Ser Leu His Gly
          435          440          445
Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465          470          475          480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
          485          490          495
Ser Ser Ala His Ala Ala Arg Thr Val Thr Ile Leu Val Trp Gln Phe
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Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
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<210> 4131

<211> 608

<212> DNA

<213> Homo sapiens

<400> 4131

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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145 150 155 160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Ala Arg
165 170 175
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala
180 185 190
Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

<400> 4133
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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 35 40 45
 Ser Glu Gly Glu Gly Glu Ala Ala Ser Ala Asp Asp Gly Ser Leu Asn
 50 55 60
 Thr Ser Gly Ala Gly Pro Lys Ser Trp Gln Val Pro Pro Pro Ala Pro
 65 70 75 80
 Glu Val Gln Ile Arg Thr Pro Arg Val Asn Cys Pro Glu Lys Val Ile
 85 90 95
 Ile Cys Leu Asp Leu Ser Glu Glu Met Ser Leu Pro Lys Leu Glu Ser
 100 105 110
 Phe Asn Gly Ser Lys Thr Asn Ala Leu Asn Val Ser Gln Lys Met Ile
 115 120 125
 Glu Met Phe Val Arg Thr Lys His Lys Ile Asp Lys Ser His Glu Phe
 130 135 140
 Ala Leu Val Val Val Asn Asp Asp Thr Ala Trp Leu Ser Gly Leu Thr
 145 150 155 160
 Ser Asp Pro Arg Glu Leu Cys Ser Cys Leu Tyr Asp Leu Glu Thr Ala
 165 170 175
 Ser Cys Ser Thr Phe Asn Leu Glu Gly Leu Phe Ser Leu Ile Gln Gln
 180 185 190
 Lys Thr Glu Leu Pro Val Thr Glu Asn Val Gln Thr Ile Pro Pro Pro
 195 200 205
 Tyr Val Val Arg Thr Ile Leu Val Tyr Ser Arg Pro Pro Cys Gln Pro
 210 215 220
 Gln Phe Ser Leu Thr Glu Pro Met Lys Lys Met Phe Gln Cys Pro Tyr
 225 230 235 240
 Phe Phe Phe Asp Val Val Tyr Ile His Asn Gly Thr Glu Glu Lys Glu
 245 250 255
 Glu Glu Met Ser Trp Lys Asp Met Phe Ala Phe Met Gly Ser Leu Asp
 260 265 270
 Thr Lys Gly Thr Ser Tyr Lys Tyr Glu Val Ala Leu Ala Gly Pro Ala
 275 280 285
 Leu Glu Leu His Asn Cys Met Ala Lys Leu Leu Ala His Pro Leu Gln
 290 295 300
 Arg Pro Cys Gln Ser His Ala Ser Tyr Ser Leu Leu Glu Glu Glu Asp
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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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 20 25 30
 Ser Leu Leu Pro Leu Leu Glu Lys Leu Thr Thr Gly Arg Ile Ala Glu
 35 40 45
 Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe
 50 55 60
 Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Val Tyr Val Gly Leu
 65 70 75 80
 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Val Gly Asn Ser Met
 85 90 95
 Phe Ser Asp Leu Val Ser Val Ala Gly His Ile Tyr Lys Phe Gly Ile
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<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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 480
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 2220
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<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138
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 35 40 45
 Val Ser Leu Gly His Leu Glu Ser Ala Arg Val Leu Leu Arg His Lys
 50 55 60
 Ala Asp Val Thr Lys Glu Asn Arg Gln Gly Trp Thr Val Leu His Glu
 65 70 75 80
 Ala Val Ser Thr Gly Asp Pro Glu Met Val Tyr Thr Val Leu Gln His
 85 90 95
 Arg Asp Tyr His Asn Thr Ser Met Ala Leu Glu Gly Val Pro Glu Leu
 100 105 110
 Leu Gln Lys Ile Leu Glu Ala Pro Asp Phe Tyr Val Gln Met Lys Trp
 115 120 125
 Glu Phe Thr Ser Trp Val Pro Leu Val Ser Arg Ile Cys Pro Asn Asp
 130 135 140
 Val Cys Arg Ile Trp Lys Ser Gly Ala Lys Leu Arg Val Asp Ile Thr
 145 150 155 160
 Leu Leu Gly Phe Glu Asn Met Ser Trp Ile Arg Gly Arg Ser Phe
 165 170 175
 Ile Phe Lys Gly Glu Asp Asn Trp Ala Glu Leu Met Glu Val Asn His
 180 185 190
 Asp Asp Lys Val Val Thr Thr Glu Arg Phe Asp Leu Ser Gln Glu Met
 195 200 205
 Glu Arg Leu Thr Leu Asp Leu Met Lys Pro Lys Ser Arg Glu Val Glu
 210 215 220
 Arg Arg Leu Thr Ser Pro Val Ile Asn Thr Ser Leu Asp Thr Lys Asn
 225 230 235 240
 Ile Ala Phe Glu Arg Thr Lys Ser Gly Phe Trp Gly Trp Arg Thr Asp
 245 250 255
 Lys Ala Glu Val Val Asn Gly Tyr Glu Ala Lys Val Tyr Thr Val Asn
 260 265 270
 Asn Val Asn Val Ile Thr Lys Ile Arg Thr Glu His Leu Thr Glu Glu
 275 280 285
 Glu Lys Lys Arg Tyr Lys Ala Asp Arg Asn Pro Leu Glu Ser Leu Leu
 290 295 300
 Gly Thr Val Glu His Gln Phe Gly Ala Gln Gly Asp Leu Thr Thr Glu
 305 310 315 320
 Cys Ala Thr Ala Asn Asn Pro Thr Ala Ile Thr Pro Asp Glu Tyr Phe
 325 330 335
 Asn Glu Glu Phe Asp Leu Xaa Arg Gln Gly His Trp Xaa Gly Arg Lys

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 <210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

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 <211> 50
 <212> PRT
 <213> Homo sapiens

 <400> 4140
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 Val Pro
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 <210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

 <400> 4141
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 780
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<210> 4142

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
			35				40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
			50				55				60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
			65			70				75			80		
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
				85				90					95		
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

100 105 110
 Ser Gln Glu Thr Gly Pro Thr Leu Pro Arg Gln Asn Ser Gln Leu Pro
 115 120 125
 Ala Gln Val Gln Asn Gly Pro Ser Gln Glu Glu Leu Glu Ile Gln Arg
 130 135 140
 Arg Gln Leu Gln Glu Gln Gln Arg Gln Lys Glu Leu Glu Arg Glu Arg
 145 150 155 160
 Leu Glu Arg Glu Arg Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu
 165 170 175
 Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu Glu Gln Glu Gln Leu Glu
 180 185 190
 Arg Glu Arg Gln Glu Arg Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu
 195 200 205
 Arg Leu Glu Arg Gln Glu Arg Leu Glu Arg Gln Glu Arg Leu Asp Arg
 210 215 220
 Glu Arg Glu Arg Gln Glu Arg Glu Arg Leu Glu Arg Leu Glu Arg Glu
 225 230 235 240
 Arg Gln Glu Arg Glu Arg Gln Glu Gln Leu Glu Arg Glu Gln Leu Glu
 245 250 255
 Trp Glu Arg Glu Arg Arg Ile Ser Ser Ala Ala Ala Pro Ala Ser Val
 260 265 270
 Glu Thr Pro Leu Asn Ser Val Leu Gly Asp Ser Ser Ala Ser Glu Pro
 275 280 285
 Gly Leu Gln Ala Ala Ser Gln Pro Ala Glu Thr Pro Ser Gln Gln Gly
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 Ile Val Leu Gly Pro Leu Ala
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<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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 35 40 45
 Ser Val Leu Tyr Leu His Arg Ser Leu Ala Asp Leu Gly Arg Leu Trp

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Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Lys Thr Ile Ile Ser
100              105              110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
115              120              125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
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Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
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Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
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Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
180              185              190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
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<212> DNA

<213> Homo sapiens

<400> 4145

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<213> Homo sapiens

<400> 4146

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Glu Tyr Ala Lys Thr Trp Ser Arg Tyr Ala Lys Glu Leu Leu Ala Trp
      65                70                75
Thr Glu Lys Arg Ala Ser Tyr Glu Leu Glu Phe Ala Lys Ser Thr Met
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Lys Ile Ala Glu Ala Gly Lys Val Ser Ile Gln Gln Gln Ser His Met
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<210> 4147

<211> 4892

<212> DNA

<213> Homo sapiens

<400> 4147

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<210> 4148

<211> 697

<212> PRT

<213> Homo sapiens

<400> 4148

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 50 55 60
 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
 65 70 75 80
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
 85 90 95
 Asp Lys Gly Leu Ile Asn Lys Glu Asn Thr Pro Ser Gly Phe Asn His
 100 105 110
 Leu Asp Asp Cys Ile Leu Asn Thr Gln Glu Val Glu Lys Val His Lys
 115 120 125
 Asn Thr Phe Gly Cys Ala Gly Glu Arg Ser Lys Pro Lys Arg Gln Lys
 130 135 140
 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val
 145 150 155 160
 Asn Met Glu Ser Leu Asn Ser Thr Arg Ser His Glu Arg Thr Gly Pro
 165 170 175
 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

180
 Gly Gly His Thr Gln His Phe Glu Ser Pro Thr Met Lys Ile Gln Glu
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 His Pro Ser Leu Ser Asp Thr Lys Gln Gln Arg Asn Gln Asp Ala Gly
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 Asp Gln Glu Glu Ser Phe Val Ser Glu Val Pro Gln Ser Asp Leu Thr
 225
 Ala Leu Cys Asp Glu Lys Asn Trp Glu Glu Pro Ile Pro Ala Phe Ser
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 Ser Trp Gln Arg Glu Asn Ser Asp Ser Asp Glu Ala His Leu Ser Pro
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 Gln Ala Gly Arg Leu Ile Arg Gln Leu Leu Asp Glu Asp Ser Asp Pro
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 Met Leu Ser Pro Arg Phe Tyr Ala Tyr Gly Gln Ser Arg Gln Tyr Leu
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 Ile Arg Lys Phe Glu Asp Arg Phe Glu Glu Glu Lys Lys Tyr Arg Pro
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 Ser Ile Gln Arg Lys Leu Gln Glu Lys Arg Ala Glu Ser Ser Arg Pro
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 Glu Asp Ile Lys Asp Met Thr Lys Asp Gln Ile Ala Asn Glu Lys Val
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 Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys Ile Pro Ser Lys Cys
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Asn Val Gln Lys Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu
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<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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<210> 4150

<211> 193

<212> FRT

<213> Homo sapiens

<400> 4150

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<210> 4151

<211> 1372

<212> DNA

<213> Homo sapiens

<400> 4151

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<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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          20          25          30
Arg Glu Gly Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
          35          40          45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
          50          55          60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Arg Gly Gln Val
          65          70          75          80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
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Pro

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<211> 395

<212> DNA

<213> Homo sapiens

<400> 4153

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<211> 110

<212> PRT

<213> Homo sapiens

<400> 4154

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          20          25          30
Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
          35          40          45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
          50          55          60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
          65          70          75          80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
          85          90          95
Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
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<211> 1191

<212> DNA

<213> Homo sapiens

<400> 4155

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<210> 4156

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4156

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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
	35	40	45
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
	50	55	60
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
	65	70	75
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
	85	90	95
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
	100	105	110
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
	115	120	125
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
	130	135	140
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
	145	150	155
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
	165	170	175
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
	180	185	190
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
	195	200	205
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
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Ser Ala Ser Thr Glu Ser Arg Arg Asp			
225	230		

<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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540

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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1

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15

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Asp Glu Phe Glu Glu Thr Leu Gln Glu Ala Cys Arg His Leu Gly Arg
      35      40      45
Tyr Arg Val Ile Gly Arg Met Phe Arg Arg Glu Glu Asn Ala Gln Ala
      50      55      60
Ile Leu Leu Glu Leu Ala Gln Asp Ile Asp Tyr Ala Leu Leu Pro Arg
65      70      75      80
Glu Ile Pro Gly Lys Gly Gly Pro Trp Glu Val Ile Val Lys Pro Arg
      85      90      95
Asn Ser Asp Gly Glu Phe Leu Asn Arg Leu Asn Arg Phe Leu Glu Glu
      100      105      110
Glu Arg Arg Thr Val Ser Asp Met Asn Arg Val Leu Gly Ser Asp Thr
      115      120      125
Asn Cys Ser Ala Pro Arg Val Thr Ile Ser Pro Glu Phe Trp Thr Trp
      130      135      140
Ala Gln Thr Leu Gly Ala Ala Val Gln Pro Leu Leu Glu Gln Met Leu
145      150      155      160
Tyr Arg Glu Leu Arg Val Phe Ser Gly Asn Thr Ile Ser Ile Pro Gly
      165      170      175
Ala Leu Ala Phe Asp Ala Trp Leu Glu His Thr Thr Glu Met Leu Gln
180      185      190
Met Trp Gln Val Pro Glu Gly Glu Lys Arg Arg Arg Leu Met Glu Cys
195      200      205
Leu Arg Gly Pro Ala Leu Gln Val Val Ser Gly Leu Arg Ala Ser Asn
210      215      220
Ala Ser Ile Thr Val Glu Glu Cys Leu Ala Ala Leu Gln Gln Val Phe
225      230      235      240
Gly Pro Val Glu Ser His Lys Ile Ala Gln Val Lys Leu Cys Lys Ala
      245      250      255
Tyr Gln Glu Ala Gly Glu Lys Val Ser Ser Phe Val Leu Arg Leu Glu
260      265      270
Pro Leu Leu Gln Arg Ala Val Glu Asn Asn Val Val Ser Arg Arg Asn
275      280      285
Val Asn Gln Thr Arg Leu Lys Arg Val Leu Ser Gly Ala Thr Leu Pro
290      295      300
Asp Lys Leu Arg Asp Lys Leu Lys Leu Met Lys Gln Arg Arg Lys Pro
305      310      315      320
Pro Gly Phe Leu Ala Leu Val Lys Leu Leu Arg Glu Glu Glu Glu Trp
      325      330      335
Glu Ala Thr Leu Gly Pro Asp Arg Glu Ser Leu Glu Gly Leu Glu Val
340      345      350
Ala Pro Arg Pro Pro Ala Arg Ile Thr Gly Val Gly Ala Val Pro Leu
355      360      365
Pro Ala Ser Gly Asn Ser Phe Asp Ala Arg Pro Ser Gln Gly Tyr Arg
370      375      380
Arg Arg Arg Gly Arg Gln His Arg Arg Gly Gly Val Ala Arg Ala
385      390      395      400
Gly Ser Arg Gly Ser Arg Lys Arg Lys Arg His Thr Phe Cys Tyr Ser
      405      410      415
Cys Gly Glu Asp Gly His Ile Arg Val Gln Cys Ile Asn Pro Ser Asn
420      425      430
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<210> 4159
 <211> 1491
 <212> DNA
 <213> Homo sapiens

<400> 4159
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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

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Pro	Trp	Val	Asn	Asp	Gln	Asp	Val	Pro	Phe	Cys	Pro	Asp	Cys	Gly	Asn
	35					40						45			
Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
	50				55						60				
Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
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Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
			85						90					95	
Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
			100					105					110		
Ser	Met	Ser	Ser	Val	Ser	Ser	Val	Leu	Asp	Glu	Lys	Asp	Asp	Asp	Arg
	115					120						125			
Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
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Ile	Arg	Met	Ala	Ala	Ser	Leu	Asn	Ala	Gly	Glu	Thr	Thr	Tyr	Ser	Leu
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Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
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Ile	Asp	Ala	Leu	Ser	Lys	Lys	Ile	Leu	Thr	Leu	Gly	Leu	Asn	Gln	Asp
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Pro	Pro	Pro	His	Pro	Ser	Asn	Leu	Arg	Leu	Gln	Arg	Met	Ile	Arg	Tyr
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Ser	Ala	Thr	Leu	Phe	Val	Gln	Glu	Lys	Leu	Leu	Gly	Leu	Met	Ser	Leu
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Pro	Thr	Lys	Glu	Gln	Phe	Glu	Glu	Leu	Lys	Lys	Arg	Lys	Glu	Glu	
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Met	Glu	Arg	Lys	Arg	Ala	Val	Glu	Arg	Gln	Ala	Ala	Leu	Glu	Ser	Gln
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 <213> Homo sapiens
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
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Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
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Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
		85						90					95		
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
	100						105						110		
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
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Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
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Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
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Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
		180					185						190		
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
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Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
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Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
			245					250					255		
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 Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val Lys Ile Tyr Asp Gly
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 Ser His Ala Pro Leu Thr Val Val Ser Ser Gly Gln Ile Arg Val
 340 345 350
 His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg Gly Phe Asn Ala Thr
 355 360 365
 Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu Ile Pro Cys Gly Gly
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 Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr Met Cys Gln Lys Glu
 405 410 415
 Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr Pro Arg Ser Asp Arg
 420 425 430
 Cys Asn Tyr Gln Asn His Cys Pro Asn Gly Ser Asp Glu Lys Asn Cys
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 545 550 555 560
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 580 585 590
 Leu Pro Met Ala Gly Arg Ser Ser Asn Ile Trp Asn Arg Ile Phe Asn
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 Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala Leu Val Ser Ala Asp
 610 615 620
 Gly Asp Glu Val Val Pro Ser Gln Ser Thr Ser Arg Glu Pro Glu Arg
 625 630 635 640
 Asn His Thr His Arg Ser Leu Phe Ser Val Glu Ser Asp Asp Thr Asp
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 Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala Ser Gly Gly Val Ala
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 Val Gly Ala Cys Ala Ser Ser Ser Thr Gln Ser Thr Arg Gly Gly His

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Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln
        740                745                750
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu
        755                760                765
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser
        770                775                780
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser
785                790                795                800
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly
        805                810                815
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PPT

<213> Homo sapiens

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Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
 35           40           45
Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
 50           55           60
Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65           70           75           80
Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
 85           90           95
Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
100           105           110
Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
115           120           125
Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
130           135           140
Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
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Trp Trp Cys Arg His Met Ala Ile Glu Leu Gln
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<211> 717
<212> DNA
<213> Homo sapiens

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<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
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Lys Pro Val Val Met Pro
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<211> 897

<212> DNA

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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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 20 25 30
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 35 40 45
 Pro Pro Gly Ile Lys Gln Ser Ser Cys Phe Ser Leu Leu Ser Ser Leu
 50 55 60
 Asp Tyr Arg Tyr Gly Arg Val Glu Ser Val Lys Ile Leu Pro Lys Arg
 65 70 75 80
 Gly Ser Glu Gly Gly Val Ala Ala Phe Val Asp Phe Val Asp Ile Lys
 85 90 95
 Ser Ala Gln Lys Ala His Asn Ser Val Asn Lys Met Gly Asp Arg Asp
 100 105 110
 Leu Arg Thr Asp Tyr Asn Glu Pro Gly Thr Ile Pro Ser Ala Ala Arg
 115 120 125
 Gly Leu Asp Asp Thr Val Ser Ile Ala Ser Arg Ser Arg Glu Val Ser
 130 135 140
 Gly Phe Arg Gly Gly Gly Gly Gly Pro Ala Tyr Gly Pro Pro Pro Ser
 145 150 155 160
 Leu His Ala Arg Glu Gly Arg Tyr Glu Arg Arg Leu Asp Gly Ala Ser
 165 170 175
 Asp Asn Arg Glu Arg Ala Tyr Glu His Ser Ala Tyr Gly His His Glu
 180 185 190
 Arg Gly Thr Gly Gly Phe Asp Arg Thr Arg His Tyr Asp Gln Asp Tyr
 195 200 205
 Tyr Arg Asp Pro Arg Glu Arg Thr Leu Gln His Gly Leu Tyr Tyr Ala
 210 215 220
 Ser Arg Ser Arg Ser Pro Asn Arg Phe Asp Ala His Asp Pro Arg Tyr
 225 230 235 240
 Glu Pro Arg Ala Arg Glu Gln Phe Thr Leu Pro Ser Val Val His Arg
 245 250 255
 Asp Ile Tyr Arg Asp Asp Ile Thr Arg Glu Val Arg Gly Arg Arg Pro


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<211> 4743
<212> DNA
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1260

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<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
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Ile	Cys	Phe	Pro	Asp	Ser	Leu	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe
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Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
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Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
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 485 490 495
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 Leu Pro Asp Thr Arg Pro Leu His Leu Ala Lys Lys Gln Glu Thr Ala

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              770              775              780
Trp Arg Val Gln Lys Ala Leu Leu Gln Lys Phe Thr Pro Glu Ile Lys
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Asp Gly Gln Arg Gln Phe Cys Ala Thr Ser Asn Tyr Leu Gly Tyr Phe
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Gly Asp Ala Lys Asn Arg Tyr Gln Arg Leu Tyr Val Lys Phe Leu Glu
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His Arg Pro Pro Val Pro Val Arg Arg Ser Gly Gln Ala Lys Asn Pro
              850              855              860
Val Ser Ala Gly Gly Ser Ser Ala Pro Pro Pro Lys Ala Pro Ala Pro
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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<210> 4172

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4172

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Leu	Val	Ile	Ile	Gly	Thr	Leu	Leu	Ala	Trp	Tyr	Leu	Cys	Phe	Leu	Ile
	35					40						45			
Val	Phe	Ile	Leu	Pro	Leu	Asp	Val	Ser	Thr	Thr	Ile	Tyr	Asn	Arg	Cys
	50				55					60					
Lys	His	Ala	Ala	Gln	Ile	Gln	Ala	Leu	Leu	Arg	Ile	Ala	Thr	Leu	Gln
65				70				75					80		
Asp	Cys	Ala	Thr	Ala	Asn	Pro	Val	Pro	Ser	Gln	His	Pro	Cys	Phe	Lys
			85					90					95		
Pro	Trp	Ser	Tyr	Ile	Pro	Asp	Gly	Ile	Met	Pro	Ile	Phe	Trp	Arg	Val
			100				105						110		
Val	Tyr	Trp	Thr	Ser	Gln	Phe	Leu	Thr	Trp	Ile	Leu	Leu	Pro	Phe	Met
			115			120						125			
Gln	Ser	Tyr	Ala	Arg	Ser	Gly	Gly	Phe	Ser	Ile	Thr	Gly	Lys	Ile	Lys
			130			135						140			
Thr	Ala	Leu	Ile	Glu	Asn	Ala	Ile	Tyr	Tyr	Gly	Thr	Tyr	Leu	Leu	Ile
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Phe	Gly	Ala	Phe	Leu	Ile	Tyr	Val	Ala	Val	Asn	Pro	His	Leu	His	Leu
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<211> 404

<212> DNA

<213> Homo sapiens

<400> 4173

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 <213> Homo sapiens

<400> 4174
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 Gly Thr Pro Val Ser Lys Cys Ala Arg Ala Leu Gly Ser Ala Lys Gly
 35 40 45
 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp
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 <211> 2778
 <212> DNA
 <213> Homo sapiens

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<210> 4176

<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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 Leu Thr Ile Ile Gln Thr Thr Gln Gly Phe Cys Arg Tyr Leu Glu Lys
 50 55 60
 Gln Phe Ser Asp Leu Lys Gln Lys Gly Ile Val Ile Ser Phe Asp Ala
 65 70 75 80
 Arg Ala His Pro Ser Ser Gly Gly Ser Ser Arg Arg Phe Ala Arg Leu
 85 90 95
 Ala Ala Thr Thr Phe Ile Ser Gln Gly Ile Pro Val Tyr Leu Phe Ser
 100 105 110
 Asp Ile Thr Pro Thr Pro Phe Val Pro Phe Thr Val Ser His Leu Lys
 115 120 125
 Leu Cys Ala Gly Ile Met Ile Thr Ala Ser His Asn Pro Lys Gln Asp
 130 135 140
 Asn Gly Tyr Lys Val Tyr Trp Asp Asn Gly Ala Gln Ile Ile Ser Pro
 145 150 155 160
 His Asp Lys Gly Ile Ser Gln Ala Ile Glu Glu Asn Leu Glu Pro Trp
 165 170 175
 Pro Gln Ala Trp Asp Asp Ser Leu Ile Asp Ser Ser Pro Leu Leu His
 180 185 190
 Asn Pro Ser Ala Ser Ile Asn Asn Asp Tyr Phe Glu Asp Leu Lys Lys
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 His Thr Ser Val His Gly Val Gly His Ser Phe Val Gln Ser Ala Phe
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 Lys Ala Phe Xaa Pro Cys Ser Ser Xaa Glu Ala Val Pro Glu Gln Lys

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Val Ser Ser Lys Ile Leu Arg Ala Ile Ala Leu Lys Glu Gly Phe His
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Gln Leu Ile Asp Gln Gly Lys Thr Val Leu Phe Ala Phe Glu Glu Ala
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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<210> 4178

<211> 398

<212> FRT

<213> Homo sapiens

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<400> 4178
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35      40      45
Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
50      55      60
Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
65      70      75      80
His Gly Leu Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
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Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
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Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
115     120     125
Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
130     135     140
Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu
145     150     155     160
Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
165     170     175
Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
180     185     190
Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
195     200     205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
210     215     220
Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val
225     230     235     240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
245     250     255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
260     265     270
Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
275     280     285
Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
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Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
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Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
325     330     335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
340     345     350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
355     360     365
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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 Thr Asp Cys Val Met Ile Ser Thr Arg Leu Val Ser Ser Val His Ala
 35 40 45
 Val Leu Ala Thr Gly Ser Gly Ile Val Ile Ile Arg Ser Cys Asp Asp
 50 55 60
 Val Ile Thr Gly Arg His Trp Leu Ala Arg Glu Tyr Val Trp Phe Leu
 65 70 75 80
 Ile Pro Tyr Met Ile Tyr Asp Ser Tyr Ala Met Tyr Leu Cys Glu Trp
 85 90 95
 Cys Arg Thr Arg Asp Gln Asn Arg Ala Pro Ser Leu Thr Leu Arg Asn
 100 105 110
 Phe Leu Ser Arg Asn Arg Leu Met Ile Thr His His Ala Val Ile Leu
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 Phe Val Leu Val Pro Val Ala Gln Arg Leu Arg Gly Asp Leu Gly Asp
 130 135 140
 Phe Phe Val Gly Cys Ile Phe Thr Ala Glu Leu Ser Thr Pro Phe Val
 145 150 155 160
 Ser Leu Gly Arg Val Leu Ile Gln Leu Lys Gln Gln His Thr Leu Leu
 165 170 175
 Tyr Lys Val Asn Gly Ile Leu Thr Leu Ala Thr Phe Leu Ser Cys Arg

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Ile	Leu	Leu	Phe	Pro	Phe	Met	Tyr	Trp	Ser	Tyr	Gly	Arg	Gln	Gln	Gly
	195		200		205										
Leu	Ser	Leu	Leu	Gln	Val	Pro	Phe	Ser	Ile	Pro	Phe	Tyr	Cys	Asn	Val
	210		215		220										
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<210> 4181

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4181

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<210> 4182

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4182

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Val Ser Tyr Thr Phe Leu Tyr Trp Leu Pro Leu Tyr Ile Ala Asn Val

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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
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Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
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Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
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Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
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Val	Gln	Asn	Gln	Gln	Ile
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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 1080
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 1200
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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

Xaa	Val	Phe	Lys	Ser	Leu	Asp	Lys	Lys	Asn	Asp	Gly	Arg	Ile	Asp	Ala
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Gln	Glu	Ile	Met	Gln	Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu
			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
			35				40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
			50				55				60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
			65				70				75			80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90						95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100					105					110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
			115					120					125		
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
			130				135					140			
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
			145				150				155			160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165					170						175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
			180					185					190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
			195				200						205		
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
			210				215						220		
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
			225				230					235		240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

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                245                250                255
Pro Asn Met Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val
                260                265                270
Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser
                275                280                285
Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
                290                295                300
Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
                305                310                315                320
Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
                325                330                335
Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
                340                345                350
Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile
                355                360                365
Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly Val Gln Ser
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Arg
385

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<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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120
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180
taccagggcc gctcctttga acctgtaggt actcgccccc gagtggactc catgagctct
240
gtggaggagg atgactacga cacattgacc gacatcgatt ccgacaagaa tgtcattcgc
300
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360
aagtaccaga tctacttctg gaacattgcc accattgctg tcttctatgc ctttctctgt
420
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480
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540
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600
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660
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720
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840

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 960
 tatctctatg taaaggcatg tgccgcagtg aagaaaacag tataattaag aaggggtccc
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 1080
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 1087

<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
		20						25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
		35					40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
		50				55					60				
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65				70						75				80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
				85					90					95	
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
		115					120				125				
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
		130				135					140				
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
145				150						155				160	
Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165						170					175	
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
		180					185					190			
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
		195					200					205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
		210				215					220				
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
			225			230				235				240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245					250						255	
Glu	Trp	Gly	Val	Leu	Leu	Phe	Trp	Leu	Asn	Leu	Gln	Gln	Gly	Pro	Ala
			260					265					270		

<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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 120
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 180
 acagaagtga agaaagtga ggccggagaa aactattcca aggatcaagg tggatcgagaca
 240
 ttgtgtgggtg taatgaggat tggcctgggt gcaaaaggct tgctgattaa agatgatatg
 300
 gacttggagc tggtttttaat gtgcaaagac aaaccacag agaccctgtt aaatacagtc
 360
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 420
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 480
 gtgactactta cctcacctct aattagggac gaattggaga agaaggatgg agaaaatgtt
 540
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 660
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 720
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 780
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 900
 caaaaagaag atattaccca cagtgcacag catgactca gactatcagc ctttggctag
 960
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 1020
 tggtcagtta ctgataaaga aggtgctggg tcttcagctc taaagaggcc atttgaagat
 1080
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 1440
 ggtgggaagcc atgacaagcg ctttgtaatg gaggtagaag tagatggaca gaaattcaga
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<210> 4190

<211> 523

<212> FRT

<213> Homo sapiens

<400> 4190

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 20 25 30
 Met Val Ser Thr Val Glu Cys Ala Leu Lys His Val Ser Asp Trp Leu
 35 40 45
 Asp Glu Thr Asn Lys Gly Thr Lys Thr Glu Gly Glu Thr Glu Val Lys
 50 55 60
 Lys Asp Glu Ala Gly Glu Asn Tyr Ser Lys Asp Gln Gly Gly Arg Thr
 65 70 75 80
 Leu Cys Gly Val Met Arg Ile Gly Leu Val Ala Lys Gly Leu Leu Ile
 85 90 95
 Lys Asp Asp Met Asp Leu Glu Leu Val Leu Met Cys Lys Asp Lys Pro
 100 105 110
 Thr Glu Thr Leu Leu Asn Thr Val Lys Asp Asn Leu Pro Ile Gln Ile
 115 120 125
 Gln Lys Leu Thr Glu Glu Lys Tyr Gln Val Glu Gln Cys Val Asn Glu
 130 135 140
 Ala Ser Ile Ile Ile Arg Asn Thr Lys Glu Pro Thr Leu Thr Leu Lys
 145 150 155 160
 Val Ile Leu Thr Ser Pro Leu Ile Arg Asp Glu Leu Lys Lys Asp
 165 170 175
 Gly Glu Asn Val Ser Met Lys Asp Pro Pro Asp Leu Leu Asp Arg Gln
 180 185 190
 Lys Cys Leu Asn Ala Leu Ala Ser Leu Arg His Ala Lys Trp Phe Gln
 195 200 205
 Ala Arg Ala Asn Gly Leu Lys Ser Cys Val Ile Val Leu Arg Ile Leu
 210 215 220
 Arg Asp Leu Cys Asn Arg Val Pro Thr Trp Ala Pro Leu Lys Gly Trp
 225 230 235 240
 Pro Leu Glu Leu Ile Cys Glu Lys Ser Ile Gly Thr Cys Asn Arg Pro
 245 250 255
 Leu Gly Ala Gly Glu Ala Leu Arg Arg Val Met Glu Cys Leu Ala Ser
 260 265 270
 Gly Ile Leu Leu Pro Gly Gly Pro Gly Leu His Asp Pro Cys Glu Arg
 275 280 285
 Asp Pro Thr Asp Ala Leu Ser Tyr Met Thr Ile Gln Gln Lys Glu Asp
 290 295 300
 Ile Thr His Ser Ala Gln His Ala Leu Arg Leu Ser Ala Phe Gly Gln
 305 310 315 320
 Ile Tyr Lys Val Leu Glu Met Asp Pro Leu Pro Ser Ser Lys Pro Phe
 325 330 335
 Gln Lys Tyr Ser Trp Ser Val Thr Asp Lys Glu Gly Ala Gly Ser Ser

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          340          345          350
Ala Leu Lys Arg Pro Phe Glu Asp Gly Leu Gly Asp Asp Lys Asp Pro
          355          360          365
Asn Lys Lys Met Lys Arg Asn Leu Arg Lys Ile Leu Asp Ser Lys Ala
          370          375          380
Ile Asp Leu Met Asn Ala Leu Met Arg Leu Asn Gln Ile Arg Pro Gly
          385          390          395          400
Leu Gln Tyr Lys Leu Leu Ser Gln Ser Gly Pro Val His Ala Pro Val
          405          410          415
Phe Thr Met Ser Val Asp Val Asp Gly Thr Thr Tyr Glu Ala Ser Gly
          420          425          430
Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln
          435          440          445
Ala Met Gly Tyr Pro Thr Gly Phe Asp Ala Asp Ile Glu Cys Met Ser
          450          455          460
Ser Asp Glu Lys Arg Arg Gly Leu Lys Tyr Glu Leu Ile Ser Glu Thr
          465          470          475          480
Gly Gly Ser His Asp Lys Arg Phe Val Met Glu Val Glu Val Asp Gly
          485          490          495
Gln Lys Phe Arg Gly Ala Gly Pro Asn Lys Lys Val Ala Lys Ala Ser
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Ala Ala Leu Leu Ala Xaa Gly Glu Thr Val Phe
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<210> 4191

<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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120
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180
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240
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360
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420
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480
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540
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600
gtcctgtgtc tggccttcca cccacgcag cctcccccag tcgcaggagg gctgtacagt
660
ggtgaggtgt tgggtgtgga cctgagccgt cttgaggacc cgctgctgtg gcgcacagcg
720

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ctgacggatg acacccacac agaccctgtg tcccaggtgg tgtggctgcc cgagcctggg
 780
 cacagccacc gcttccaggt gctgagtggt gccactgacg ggaaggtgct actctggcag
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 900
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 960
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 1440
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 1500
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 1560
 ccgggagggg ggtgcaagcc ttcgtctgtc cgagccttgt gtttctgacg caagccaaat
 1620
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 1661

<210> 4192

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4192

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 20 25 30
 Trp Arg Ala Val Gln Gly Ile Arg Gly Glu Thr Lys Ser Cys Gln Thr
 35 40 45
 Ala Ser Ile Ala Thr Ala Ser Ala Ser Ala Gln Ala Arg Asn His Val
 50 55 60
 Asp Ala Gln Val Gln Thr Glu Ala Pro Val Pro Val Ser Val Gln Pro
 65 70 75 80
 Pro Ser Gln Tyr Asp Ile Pro Arg Leu Ala Ala Phe Leu Arg Arg Val
 85 90 95
 Glu Ala Met Val Ile Arg Glu Leu Asn Lys Asn Trp Gln Ser His Ala
 100 105 110
 Phe Asp Gly Phe Glu Val Asn Trp Thr Glu Gln Gln Gln Met Val Ser

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Cys Leu Tyr Thr Leu Gly Tyr Pro Pro Ala Gln Ala Gln Gly Leu His
130              135              140
Val Thr Ser Ile Ser Trp Asn Ser Thr Gly Ser Val Val Ala Cys Ala
145              150              155
Tyr Gly Arg Leu Asp His Gly Asp Trp Ser Thr Leu Lys Ser Phe Val
      165              170              175
Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu Arg Pro Gln Gln Pro Ser
180              185              190
Ala Val Val Glu Val Pro Ser Ala Val Leu Cys Leu Ala Phe His Pro
195              200              205
Thr Gln Pro Ser His Val Ala Gly Gly Leu Tyr Ser Gly Glu Val Leu
210              215              220
Val Trp Asp Leu Ser Arg Leu Glu Asp Pro Leu Leu Trp Arg Thr Gly
225              230              235
Leu Thr Asp Asp Thr His Thr Asp Pro Val Ser Gln Val Val Trp Leu
      245              250              255
Pro Glu Pro Gly His Ser His Arg Phe Gln Val Leu Ser Val Ala Thr
260              265              270
Asp Gly Lys Val Leu Leu Trp Gln Gly Ile Gly Val Gly Gln Leu Gln
275              280              285
Leu Thr Glu Gly Phe Ala Leu Val Met Gln Gln Leu Pro Arg Ser Thr
290              295              300
Lys Leu Lys Lys His Pro Arg Gly Glu Thr Glu Val Gly Ala Thr Ala
305              310              315
Val Ala Phe Ser Ser Phe Asp Pro Arg Leu Phe Ile Leu Gly Thr Glu
      325              330              335
Gly Gly Phe Pro Leu Lys Cys Ser Leu Ala Ala Gly Glu Ala Ala Leu
340              345              350
Thr Arg Met Pro Ser Ser Val Pro Leu Arg Ala Pro Ala Gln Phe Thr
355              360              365
Phe Ser Pro His Gly Gly Pro Ile Tyr Ser Val Ser Cys Ser Pro Phe
370              375              380
His Arg Asn Leu Phe Leu Ser Ala Gly Thr Asp Gly His Val His Leu
385              390              395
Tyr Ser Met Leu Gln Ala Pro Pro Leu Thr Ser Leu Gln Leu Ser Leu
      405              410              415
Lys Tyr Leu Phe Ala Val Arg Trp Ser Pro Val Arg Pro Leu Val Phe
420              425              430
Ala Ala Ala Ser Gly Lys Gly Asp Val Gln Leu Phe Asp Leu Gln Lys
435              440              445
Ser Ser Gln Lys Pro Thr Val Leu Ile Lys Gln Thr Gln Asp Glu Ser
450              455              460
Pro Val Tyr Cys Leu Glu Phe Asn Ser Gln Gln Thr Gln Leu Leu Ala
465              470              475
Ala Gly Asp Ala Gln Gly Thr Val Lys Val Trp Gln Leu Ser Thr Glu
      485              490              495
Phe Thr Glu Gln Gly Pro Arg Glu Ala Glu Asp Leu Asp Cys Leu Ala
500              505              510
Ala Glu Val Ala Ala
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<210> 4193

<211> 6439

<212> DNA

<213> Homo sapiens

<400> 4193

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 120
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 180
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 240
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 360
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 420
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 480
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 aatcacagtg aaatggcaga agacctgtgc aagataggat cagagagatc tctcgtgctg
 960
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 1020
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 <211> 519
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp
 50 55 60
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
 65 70 75 80
 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85 90 95
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
 130 135 140
 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
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 Leu Cys Asn Tyr Ala Cys Arg Arg Asp Ala Leu Thr Gly His Leu
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 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
 195 200 205
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
 210 215 220
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
 245 250 255
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
 260 265 270
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
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 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
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 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys

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 355 360 365
 Ala Val Glu Asn Leu Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
 370 375 380
 Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Gln Asp Ser Thr Asp Thr
 385 390 395 400
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 405 410 415
 His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu His
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 Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
 435 440 445
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 450 455 460
 Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His
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 Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
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<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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			20				25						30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
			35				40					45			
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
			50			55				60					
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
			65			70				75				80	
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85					90					95		
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100				105						110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
			115				120					125			
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
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Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
			145			150				155				160	
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
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Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
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Thr	His	Val	Val	Asn	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly	
			195			200						205			
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
			210			215						220			
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His Cys Ala Met Gly Val Ser Arg Ser Ala Thr Leu Val Leu Ala Phe
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                275                280                285
Gln Ala His Arg Asn Ile Cys Pro Asn Ser Gly Phe Leu Arg Gln Leu
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<210> 4197

<211> 597

<212> DNA

<213> Homo sapiens

<400> 4197

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<210> 4198

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4198

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Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Ile
35          40          45
Thr Gly Thr Ser Val Ala His His Gln Ser Lys Met Gly Trp Lys Asp
50          55          60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe
65          70          75          80
Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys

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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90						95	
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
		100						105				110			
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
	115				120						125				
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
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Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
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 <212> DNA
 <213> Homo sapiens

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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

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<212> DNA

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<400> 4203

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<213> Homo sapiens

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<213> Homo sapiens

<400> 4208

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Gln	Ser	Asp	Thr	Asn	Lys	Arg	Glu	Leu	Val	Gly	Asn	Asp	Phe	Lys	Ser
				20						25				30	
Ile	Asp	Arg	Arg	Thr	Ser	Thr	Pro	Asn	Ser	Arg	Ile	Gln	Arg	Ala	Thr
				35						40				45	
Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
				50						55				60	
Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
65														80	
Ala	Lys	Lys	Gly	Gln	Asn	Arg	Ser	Ser	Asn	Tyr	Leu	Ser	Cys	Arg	Thr

	85		90		95
Thr	Pro	Ala	Ile	Val	Pro
	100		105		110
Thr	Ser	Thr	Ala	Glu	Lys
	115		120		125
Tyr	Glu	Leu	Ser	Gln	Arg
	130		135		140
His	Gly	Lys	Thr	Val	Gly
	145		150		155
Ile	Ser	Pro	Gln	Asn	Leu
	165		170		175
Ser	Gln	Glu	Leu	Gln	Met
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Lys

<210> 4209

<211> 2661

<212> DNA

<213> Homo sapiens

<400> 4209

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<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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 20 25 30
 Tyr Glu Glu Glu Ile Met Arg Asn Gln Phe Ser Val Lys Cys Trp Leu
 35 40 45
 Arg Tyr Ile Glu Phe Lys Gln Gly Ala Pro Lys Pro Arg Leu Asn Gln
 50 55 60
 Leu Tyr Glu Arg Ala Leu Lys Leu Leu Pro Cys Ser Tyr Lys Leu Trp
 65 70 75 80
 Tyr Arg Tyr Leu Lys Ala Arg Arg Ala Gln Val Lys His Arg Cys Val
 85 90 95
 Thr Asp Pro Ala Tyr Glu Asp Val Asn Asn Cys His Glu Arg Ala Phe
 100 105 110
 Val Phe Met His Lys Lys Met Pro Arg Leu Trp Leu Asp Tyr Cys Gln Phe
 115 120 125
 Leu Met Asp Gln Gly Arg Val Thr His Thr Arg Arg Thr Phe Asp Arg
 130 135 140
 Ala Leu Arg Ala Leu Pro Ile Thr Gln His Ser Arg Ile Trp Pro Leu
 145 150 155 160
 Tyr Leu Arg Phe Leu Arg Ser His Pro Leu Pro Glu Thr Ala Val Arg
 165 170 175
 Gly Tyr Arg Arg Phe Leu Lys Leu Ser Pro Glu Ser Ala Glu Glu Tyr
 180 185 190
 Ile Glu Tyr Leu Lys Ser Ser Asp Arg Leu Asp Glu Ala Ala Gln Arg
 195 200 205
 Leu Ala Thr Val Val Asn Asp Glu Arg Phe Val Ser Lys Ala Gly Lys
 210 215 220
 Ser Asn Tyr Gln Leu Trp His Glu Leu Cys Asp Leu Ile Ser Gln Asn
 225 230 235 240
 Pro Asp Lys Val Gln Ser Leu Asn Val Asp Ala Ile Ile Arg Gly Gly
 245 250 255
 Leu Thr Arg Phe Thr Asp Gln Leu Gly Lys Leu Trp Cys Ser Leu Ala
 260 265 270
 Asp Tyr Tyr Ile Arg Ser Gly His Phe Glu Lys Ala Arg Asp Val Tyr
 275 280 285
 Glu Glu Ala Ile Arg Thr Val Met Thr Val Arg Asp Phe Thr Gln Val
 290 295 300
 Phe Asp Ser Tyr Ala Gln Phe Glu Glu Ser Met Ile Ala Ala Lys Met
 305 310 315 320
 Glu Thr Ala Ser Glu Leu Gly Arg Glu Glu Glu Asp Asp Val Asp Leu
 325 330 335
 Glu Leu Arg Leu Ala Arg Phe Glu His Leu Ile Ser Arg Arg Pro Leu

340 345 350
 His Leu Ser Ser Val Leu Leu Arg Gln Asn Pro His His Val His Glu
 355 360 365
 Trp His Lys Arg Val Ala Leu His Gln Gly Arg Pro Arg Glu Ile Ile
 370 375 380
 Asn Thr Tyr Thr Glu Ala Val Gln Thr Val Asp Pro Phe Lys Ala Thr
 385 390 395 400
 Gly Lys Pro His Thr Leu Trp Val Ala Phe Ala Lys Phe Tyr Glu Asp
 405 410 415
 Asn Gly Gln Leu Asp Asp Ala Arg Val Ile Leu Glu Lys Ala Thr Lys
 420 425 430
 Val Asn Phe Lys Gln Val Asp Asp Leu Ala Ser Val Trp Cys Gln Cys
 435 440 445
 Gly Glu Leu Glu Leu Arg His Glu Asn Tyr Asp Glu Ala Leu Arg Leu
 450 455 460
 Leu Arg Lys Ala Thr Ala Leu Pro Pro Pro Gly Arg Val Phe Asp Gly
 465 470 475 480
 Ser Glu Pro Val Gln Asn Arg Val Tyr Lys Ser Leu Lys Val Trp Ser
 485 490 495
 Met Leu Ala Asp Leu Glu Glu Ser Leu Gly Thr Phe Gln Ser Thr Lys
 500 505 510
 Ala Val Tyr Asp Arg Ile Leu Asp Leu Arg Ile Ala Thr Pro Gln Ile
 515 520 525
 Val Ile Asn Tyr Ala Met Phe Leu Glu Glu His Lys Tyr Phe Glu Glu
 530 535 540
 Ser Phe Lys Ala Tyr Glu Arg Gly Ile Ser Leu Phe Lys Trp Pro Asn
 545 550 555 560
 Val Ser Asp Ile Trp Ser Thr Tyr Leu Thr Lys Phe Ile Ala Arg Tyr
 565 570 575
 Gly Gly Arg Lys Leu Glu Arg Ala Arg Asp Leu Phe Glu Gln Ala Leu
 580 585 590
 Asp Gly Cys Pro Pro Lys Tyr Ala Lys Thr Leu Tyr Leu Leu Tyr Ala
 595 600 605
 Gln Leu Glu Glu Glu Trp Gly Leu Ala Arg His Ala Met Ala Val Tyr
 610 615 620
 Glu Arg Ala Thr Arg Ala Val Glu Pro Ala Gln Gln Tyr Asp Met Phe
 625 630 635 640
 Asn Ile Tyr Ile Lys Arg Ala Ala Glu Ile Tyr Gly Val Thr His Thr
 645 650 655
 Arg Gly Ile Tyr Gln Lys Ala Ile Glu Val Leu Ser Asp Glu His Ala
 660 665 670
 Arg Glu Met Cys Leu Arg Phe Ala Asp Met Glu Cys Lys Leu Gly Glu
 675 680 685
 Ile Asp Arg Ala Arg Ala Ile Tyr Ser Phe Cys Ser Gln Ile Cys Asp
 690 695 700
 Pro Arg Thr Thr Gly Ala Phe Trp Gln Thr Trp Lys Asp Phe Glu Val
 705 710 715 720
 Arg His Gly Asn Glu Asp Thr Ile Arg Glu Met Leu Arg Ile Arg Arg
 725 730 735
 Ser Val Gln Ala Thr Tyr Asn Thr Gln Val Asn Phe Met Ala Ser Gln
 740 745 750
 Met Leu Lys Val Ser Gly Ser Ala Thr Gly Thr Val Ser Asp Leu Ala
 755 760 765
 Pro Gly Gln Ser Gly Met Asp Asp Met Lys Leu Leu Glu Gln Arg Ala

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      770              775              780
Glu Gln Leu Ala Ala Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln
785              790              795              800
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala
      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

<210> 4211
<211> 456
<212> DNA
<213> Homo sapiens

<400> 4211
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120
agcttgaaaa gagacgtccc acactgogac gacaaccaac acatgggaga agctgagaaa
180
gtgcaactcag gacttcgcgt gatgtcacca ccatgggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcactactac tgggttcctat ccttggtgcag taaagtacaa cctggccagg
360
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gtacggaatt tgctccacaa acccccttgc tctaga
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<210> 4212
<211> 81
<212> PRT
<213> Homo sapiens

<400> 4212
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Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

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<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

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 ttcccgagcc cggcccggcc gccctggtag gcctgctcgt cggccttctg ggcccggcg
 180
 ctgctcacgc tgtcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctgtt tggcctggag ggcccgggct cggccagcag cgcaggcggg
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 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
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 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
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 120

ttggccttag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atggtgactg ttttaatccg ggcctgcgtg
 240
 agcatcgtcg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgttg
 300
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 360
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 420
 ttaagacaca tcattgagga cccctgtacc ctctgcata ccattgaaaa ggtgtgtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
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 660
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 720
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 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgctc ctaaacctgg ggttatgacc caagaggttg gccagctcct gcaagacatg
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<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

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 Ile Gly Glu Ile Leu Ile Gln Gly Leu Thr Glu Asp Met Val Thr Val
 35 40 45
 Leu Ile Arg Ala Cys Val Ser Met Leu Gly Val Pro Val Asp Pro Asp
 50 55 60
 Thr Leu His Ala Thr Leu Cys Phe Cys Leu Arg Val Thr Arg Gly Pro
 65 70 75 80
 Gln Leu Ala Met Met Phe Ala Glu Leu Lys Asn Thr Arg Met Ile Leu
 85 90 95
 Asn Leu Thr Gln Ser Ser Gly Phe Asn Gly Phe Thr Pro Leu Val Thr
 100 105 110
 Leu Leu Leu Arg His Ile Ile Glu Asp Pro Cys Thr Leu Arg His Thr
 115 120 125
 Met Glu Lys Val Val Arg Ser Ala Ala Thr Ser Gly Ala Gly Ser Thr
 130 135 140
 Thr Ser Gly Val Val Ser Gly Ser Leu Gly Ser Arg Glu Ile Asn Tyr


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145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg Met Gly Asp Asp
          275          280          285

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<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

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acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
180
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360
agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
420
cacacacgcc tgtgcagctc cacaggggcc tggggcagga gacagatctg aatacacata
480
ccaccctgtg ctgtgagtgg ccactcccat ccaacaactg agactttctg ttactgggccc
540
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600
cagtcctccc ctggcgcg
619

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<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

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Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

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	20	25	30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr			
	35	40	45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser			
	50	55	60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro			
65	70	75	80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro			
	85	90	95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu			
	100	105	110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln			
	115	120	125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr			
	130	135	140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn			
145	150	155	

<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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 180
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 240
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 aaaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccctgcg gagcagcccc
 420
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 480
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 540
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 gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
 660
 gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtggtg
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 774

<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220

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Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20          25          30
Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35          40          45
Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50          55          60
Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65          70          75
Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85          90          95
Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
100          105          110
Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
115          120          125
Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
130          135          140
Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
145          150          155
Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
165          170          175
Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
180          185          190
Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
195          200          205
Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
210          215          220
Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
225          230          235
Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
245          250          255
Met Leu

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<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221

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120
gaagcttcaa actgtataaa tttaaatgta ttgcatatt ataaaaataa agataaacat
180
atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
240

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ttaacagaac tgaatatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtacg cgctccttgg aggatcacag ttctgaggtt caggttgtaa aacatttgct
 420
 ccatgttttc gtcattgctt cccccacca cccctctccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgctact caagttcaca gaacacgctg ggggtgagtgc
 540
 agagggtctg ccaggtgcaa aagatggtcc aggtgttcag atgtctcttt tttccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt ctctccttaa
 660
 aaattggtgc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaa
 720
 agcactatct tttccactta attttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
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Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35					40				45				
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
		50				55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
		65			70				75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90						95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
			100				105					110			
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
		115					120					125			

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

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 gaggccgtgg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgaactt ccatctgggt
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcacatg
 300
 tacatcctct tttcaggcaa tccacctttc tatgaggagtg tggaagaaga tgattatgatg
 360
 aacctatgata agaattctctt ccgcaagatc ctggctgggtg actatgatgt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgtgtca caaggctgat ggaggtggag
 480
 caagaccacg ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttcgtata agaacatcaa ggatggtgtc tgtgccaga ttgaaaagaa ctttgcagg
 600
 gccaaagtga agaaggctgt ccgagtgaac accctcatga aacggctccg ggcaccagag
 660
 cagtcacagca cggctgcagc ccagtcggcc tcagccacag acactgccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagcccat tgatggcagt
 780
 gtcacccacg ccaccgatgg aagcatcact ccagccattg atgggagtg caccaccagc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5					10				15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
		20					25						30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
		50				55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65					70					75				80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
				85					90					95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
			115				120					125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
		130				135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
                225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

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<210> 4225

<211> 470

<212> DNA

<213> Homo sapiens

<400> 4225

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nntgtacaag aaagtgagcc agtcacgctc aatattcaag tgatggatgc aaatgataac
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acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacagggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaatgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggggagac ttcacatcatc ataaaacaac agggcttattc
240
accatcgctc caggggtgga aatgatagtc gggcggaact acgcactccc ggtccaagca
300
gcggataaat ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttccaccaa ataatacaag cctcctcgc tccccacgc tgatgtatag ccttgaattt
420
agtgaagcca tgagggttgg tgctgtttta ttaaatctac aggcaactga
470

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<210> 4226

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4226

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Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1           5           10           15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20           25           30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35           40           45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50           55           60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
				85					90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
				100				105						110	
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
				115				120					125		
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
				130			135					140			
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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attataaatt taacttctaa catgttttat ggtaaaatt gtactttttt cctttagcga
120
cattcaaatg catcacatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgctgac ttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccaggcat gagccattca gcttgctcag taaacaagag tgttctagaa
420
gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaataccgc gttgaatgtc
540
attagggtta tatccagcct gcttcaaacc aataccagca gtataaatgt ggaccttatg
600
gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660
ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720
gaaaatgcca caattaccga tcaagactcc actgggtgata atttgtttatt aaaacatctt
780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatgggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gcaactgacaa gggccccaac agtgccattg tgcagcagct tatcaagggt
960
aagtattttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaagggtca
1020
agtagaaatg catgtagcat ttttaatagt gatttgggg acttctttat atttggcaaa
1080

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ttatgtattt gaatgaggtt cttgagaatg tgtttgaaca ggggtgtttt ttgggttgta
 1140
 ttttatgttc atgtagttac agaccattcc ataagcattg gcaggcttgg ctggattca
 1199

<210> 4228

<211> 298

<212> FRT

<213> Homo sapiens

<400> 4228

Arg His Ser Asn Ala Ser Gln Ser Leu Cys Glu Ile Val Arg Leu Ser
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 Arg Asp Gln Met Leu Gln Ile Gln Asn Ser Thr Glu Pro Asp Pro Leu
 20 25 30
 Leu Ala Thr Leu Glu Lys Gln Glu Ile Ile Glu Gln Leu Leu Ser Asn
 35 40 45
 Ile Phe His Lys Glu Lys Asn Glu Ser Ala Ile Val Ser Ala Ile Gln
 50 55 60
 Ile Leu Leu Thr Leu Leu Glu Thr Arg Arg Pro Thr Phe Glu Gly His
 65 70 75 80
 Ile Glu Ile Cys Pro Pro Gly Met Ser His Ser Ala Cys Ser Val Asn
 85 90 95
 Lys Ser Val Leu Glu Ala Ile Arg Gly Arg Leu Gly Ser Phe His Glu
 100 105 110
 Leu Leu Leu Glu Pro Pro Lys Lys Ser Val Met Lys Thr Thr Trp Gly
 115 120 125
 Val Leu Asp Pro Pro Val Gly Asn Thr Arg Leu Asn Val Ile Arg Leu
 130 135 140
 Ile Ser Ser Leu Leu Gln Thr Asn Thr Ser Ser Ile Asn Gly Asp Leu
 145 150 155 160
 Met Glu Leu Asn Ser Ile Gly Val Ile Leu Asn Met Phe Phe Lys Tyr
 165 170 175
 Thr Trp Asn Asn Phe Leu His Thr Gln Val Glu Ile Cys Ile Ala Leu
 180 185 190
 Ile Leu Ala Ser Pro Phe Glu Asn Thr Glu Asn Ala Thr Ile Thr Asp
 195 200 205
 Gln Asp Ser Thr Gly Asp Asn Leu Leu Leu Lys His Leu Phe Gln Lys
 210 215 220
 Cys Gln Leu Ile Glu Arg Ile Leu Glu Ala Trp Glu Met Asn Glu Lys
 225 230 235 240
 Lys Gln Ala Glu Gly Gly Arg Arg His Gly Tyr Met Gly His Leu Thr
 245 250 255
 Arg Ile Ala Asn Cys Ile Val His Ser Thr Asp Lys Gly Pro Asn Ser
 260 265 270
 Ala Leu Val Gln Gln Leu Ile Lys Gly Lys Leu Phe Val Lys Phe Glu
 275 280 285
 Leu His Phe Cys Trp Val Ala Gly Arg Ile
 290 295

<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 4229
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120
ggaaacatga agtcggtcct caccctggaag caccggaagg agcacgccat ccccccagtg
180
gtttctgggg ggaacctccc cgggggagcc tggcactcca tcgaaggctc catggtgatc
240
ctgagccaag gccagtggtat ggggctcccg gacctggagg tcaaggactg gatgcagaag
300
aagcgaagag gtcttcgcaa cagccgggccc actgccgggg acatcgcccc ctactacagg
360
gactacgtgg tcaagaaggg tctggggcat aacttttgtt ccggtgctgt agtcacagcc
420
gtggagtggg ggacccccga tcccagcagc tgtggggccc aggactccag cccctcttc
480
caggtgagcg gcttcctgac caggaaaccag gccccagcag ccttctcgct gtgggcccgc
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660
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720
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780
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840
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900
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960
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1020
gacctctcct tctgctctgg ggcaggggct gactttgcag tggatcctga ccagccgctg
1080
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1140
ggcctgtacg ccatggggcc gctggccggg gacaacttcg tgaggtttgt gcaggggggc
1200
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1260
gccagacccg ctggctccca ggccctgaga ggacagagat gaccacatcc ctgctggatg
1320
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1380
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1440
agaccagtgt gtgagtggtt aacagcgccc gcagcagggg gttggcctag acctgggatt
1500
tgtggggaag gctgctgggt tgaccagctg agcaccacag caggagacct gcagccctgc
1560

gccttccaga agcaggtccc aaataaagcc agtgcacc tgaaaaaaaa aa
1612

<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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 20              25              30
Leu Arg Pro Asp Thr Asp Phe Gly Gly Asn Met Lys Ser Val Leu Thr
 35              40              45
Trp Lys His Arg Lys Glu His Ala Ile Pro His Val Val Leu Gly Arg
 50              55              60
Asn Leu Pro Gly Gly Ala Trp His Ser Ile Glu Gly Ser Met Val Ile
 65              70              75              80
Leu Ser Gln Gly Gln Trp Met Gly Leu Pro Asp Leu Glu Val Lys Asp
 85              90              95
Trp Met Gln Lys Lys Arg Arg Gly Leu Arg Asn Ser Arg Ala Thr Ala
100              105              110
Gly Asp Ile Ala His Tyr Tyr Arg Asp Tyr Val Val Lys Lys Gly Leu
115              120              125
Gly His Asn Phe Val Ser Gly Ala Val Val Thr Ala Val Glu Trp Gly
130              135              140
Thr Pro Asp Pro Ser Ser Cys Gly Ala Gln Asp Ser Ser Pro Leu Phe
145              150              155              160
Gln Val Ser Gly Phe Leu Thr Arg Asn Gln Ala Gln Gln Pro Phe Ser
165              170              175
Leu Trp Ala Arg Asn Val Val Leu Ala Thr Gly Thr Phe Asp Ser Pro
180              185              190
Ala Arg Leu Gly Ile Pro Gly Glu Ala Leu Pro Phe Ile His His Glu
195              200              205
Leu Ser Ala Leu Glu Ala Ala Thr Arg Val Gly Ala Val Thr Pro Ala
210              215              220
Ser Asp Pro Val Leu Ile Ile Gly Ala Gly Leu Ser Ala Ala Asp Ala
225              230              235              240
Val Leu Tyr Ala Arg His Tyr Asn Ile Pro Val Ile His Ala Phe Arg
245              250              255
Arg Ala Val Asp Asp Pro Gly Leu Val Phe Asn Gln Leu Pro Lys Met
260              265              270
Leu Tyr Pro Glu Tyr His Lys Val His Gln Met Met Arg Glu Gln Ser
275              280              285
Ile Leu Ser Pro Ser Pro Tyr Glu Gly Tyr Arg Ser Leu Pro Arg His
290              295              300
Gln Leu Leu Cys Phe Lys Glu Asp Cys Gln Ala Val Phe Gln Asp Leu
305              310              315
Glu Gly Val Glu Lys Val Phe Gly Val Ser Leu Val Leu Val Leu Ile
320              325              330              335
Gly Ser His Pro Asp Leu Ser Phe Leu Pro Gly Ala Gly Ala Asp Phe
340              345              350
Ala Val Asp Pro Asp Gln Pro Leu Ser Ala Lys Arg Asn Pro Ile Asp

```

```

      355              360              365
Val Asp Pro Phe Thr Tyr Gln Ser Thr Arg Gln Glu Gly Leu Tyr Ala
      370              375              380
Met Gly Pro Leu Ala Gly Asp Asn Phe Val Arg Phe Val Gln Gly Gly
      385              390              395              400
Ala Leu Ala Val Ala Ser Ser Leu Leu Arg Lys Glu Thr Arg Lys Pro
      405              410              415
Pro

<210> 4231
<211> 1588
<212> DNA
<213> Homo sapiens

<400> 4231
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120
gagctggaag atctcaagag caaactcgta gaagtaattg aagaagtaaa taaagttaaa
180
caagaaaaaga ctgttttaaa ttcagaagtt ctgtaacaga gaaaagtctt agaaaaatgc
240
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300
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360
cagggtaaaa agacaaagcc cccctttggg cggcagagtt ccatccttga tcagcagtta
420
gcttttagag aaaatgcaaa actcaccag caacttgaag aagagagaat tcagcatcaa
480
caaaagggtca aagaattaga agagcaacta gaaaatgaaa cactccacaa agaaatacac
540
aacctcaaac agcaactgga gcttctagag gaagataaaa aggaattgga attgaaatat
600
cagaattctg aagagaaagc cagaaattha aagcactctg ttgatgaact ccagaaacga
660
gtgaaccagt ctgagaattc agtacctcca ccacctctc ctcaccacc acttccccct
720
ccacctccca atcctatccg atccctcatg tccatgatcc ggaaacgac ccacccagtc
780
ggcagtggtg ctaagaaaga aaaggcaact caaccagaaa caactgaaga agtcacagat
840
ctaaaggagg aagcagttga agagatgatg gatagaatta aaaagggagt tcattcttaga
900
cccgtaatag acagagccag accgaagaca aagccagaat cttcgaaagg ctgcgaaagt
960
gcagtggtg aactaaaagg aatactgggg acacttaaca aatccactag ttcaagaagc
1020
ttaaaatccc ttgaccctga aaacagtgaa actgagttag aaaggatttt gcgtcgaga
1080
aaggtgacag cagaagcaga tagcagtagt ccaactggga tattagccac ctcagagttc
1140

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aaatccatgc cagtgttggg ttctgtatcc agtgtaacaa aacagcctt gaacaagaaa
 1200
 actctggagg cagaattcaa cagcccgctc cccccaacac ctgagccagg tgaaggcccc
 1260
 cgtaaatagg aaggatgac aagttccaag gttacgtttc agtaagtaac gatgctcttt
 1320
 actaagtggg gtatagaaga atctgtaatg actaacttgt gtgtttcttt gatttggttc
 1380
 ctttagagag attttgattg gctcgccggt aaattctctt cttcttttca ttgatggggc
 1440
 cagctttttc attctaggct cctagataag agatctaatt aagatccaaa gcaagtacca
 1500
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 1560
 attgatctgg atgatacaga ctctgcag
 1588

<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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 20 25 30
 Glu Glu Lys Lys Ile Leu Ala Ile Glu Leu Glu Asn Leu Lys Ser Lys
 35 40 45
 Leu Val Glu Val Ile Glu Glu Val Asn Lys Val Lys Gln Glu Lys Thr
 50 55 60
 Val Leu Asn Ser Glu Val Leu Glu Gln Arg Lys Val Leu Glu Lys Cys
 65 70 75 80
 Asn Arg Val Ser Met Leu Ala Val Glu Glu Tyr Glu Glu Met Gln Val
 85 90 95
 Asn Leu Glu Leu Glu Lys Asp Leu Arg Lys Lys Ala Glu Ser Phe Ala
 100 105 110
 Gln Glu Met Phe Leu Glu Pro Asn Gln Gly Lys Lys Thr Lys Pro Pro
 115 120 125
 Phe Gly Arg Gln Ser Ser Ile Leu Asp Gln Gln Leu Ala Leu Asp Glu
 130 135 140
 Asn Ala Lys Leu Thr Gln Gln Leu Glu Glu Glu Arg Ile Gln His Gln
 145 150 155 160
 Gln Lys Val Lys Glu Leu Glu Glu Gln Leu Glu Asn Glu Thr Leu His
 165 170 175
 Lys Glu Ile His Asn Leu Lys Gln Gln Leu Glu Leu Leu Glu Glu Asp
 180 185 190
 Lys Lys Glu Leu Glu Leu Lys Tyr Gln Asn Ser Glu Glu Lys Ala Arg
 195 200 205
 Asn Leu Lys His Ser Val Asp Glu Leu Gln Lys Arg Val Asn Gln Ser
 210 215 220
 Glu Asn Ser Val Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro
 225 230 235 240
 Pro Pro Pro Asn Pro Ile Arg Ser Leu Met Ser Met Ile Arg Lys Arg

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                245                250                255
Ser His Pro Ser Gly Ser Gly Ala Lys Lys Glu Lys Ala Thr Gln Pro
                260                265                270
Glu Thr Thr Glu Glu Val Thr Asp Leu Lys Arg Gln Ala Val Glu Glu
                275                280                285
Met Met Asp Arg Ile Lys Lys Gly Val His Leu Arg Pro Val Asn Gln
                290                295                300
Thr Ala Arg Pro Lys Thr Lys Pro Glu Ser Ser Lys Gly Cys Glu Ser
                305                310                315
Ala Val Asp Glu Leu Lys Gly Ile Leu Gly Thr Leu Asn Lys Ser Thr
                320                325                330
Ser Ser Arg Ser Leu Lys Ser Leu Asp Pro Glu Asn Ser Glu Thr Glu
                335                340                345
Leu Glu Arg Ile Leu Arg Arg Arg Lys Val Thr Ala Glu Ala Asp Ser
                350                355                360
Ser Ser Pro Thr Gly Ile Leu Ala Thr Ser Glu Ser Lys Ser Met Pro
                365                370                375
Val Leu Gly Ser Val Ser Ser Val Thr Lys Thr Ala Leu Asn Lys Lys
                380                385                390
Thr Leu Glu Ala Glu Phe Asn Ser Pro Ser Pro Pro Thr Pro Glu Pro
                395                400                405
Gly Glu Gly Pro Arg Lys Leu Glu Gly Cys Thr Ser Ser Lys Val Thr
                410                415                420
Phe Gln
                425                430

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<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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120
cctatgtact ctctggatcg aatatttgct ggatttcgaa cacgaagtca gatgctgtg
180
ggtcacatag aagaacaaga taaggctcctc cactgccaat tttctgataa cagtgtgat
240
gaagaatcag aaggccaaga gaaatctgga actagatgta gaagtcgttc atggattcag
300
aagccagact ctgtttgttc ccttgttgaa ttgagtata ctcaggatga aacacaaaa
360
tcagatttgg agaatgaaga tttaaagatt gattgtctcc aggagagtca agaattgaat
420
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<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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 Glu Glu Ser Glu Gly Gln Glu Lys Ser Gly Thr Arg Cys Arg Ser Arg
 85 90 95
 Ser Trp Ile Gln Lys Pro Asp Ser Val Cys Ser Leu Val Glu Leu Ser
 100 105 110
 Asp Thr Gln Asp Glu Thr Gln Lys Ser Asp Leu Glu Asn Glu Asp Leu
 115 120 125
 Lys Ile Asp Cys Leu Gln Glu Ser Gln Glu Leu Asn Leu Gln Lys Leu
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 Lys Asn Ser Glu Arg Ile Leu Thr Glu Ala Lys Gln Lys Met Arg Glu
 145 150 155 160
 Leu Thr Val Asn Ile Lys Met Lys Glu Asp Leu Ile Lys Glu Leu Ile
 165 170 175
 Lys Thr Gly Asn Asp Ala Lys Ser Val Ser Lys Gln Tyr Thr Leu Lys
 180 185 190
 Val Thr Lys Leu Glu His Asp Ala Glu Gln Ala Lys Val Glu Leu Thr
 195 200 205
 Glu Thr Gln Lys Gln Leu Gln Glu Leu Glu Asn Lys Asp Leu Ser Asp

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Val Ala Met Lys Val Lys Leu Gln Lys Glu Phe Arg Lys Lys Val Asp		
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Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Gln Lys Arg Ala Asn Glu		
	260	265
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln		
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Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		
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Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly		
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Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		
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Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		
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Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		
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Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser		
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Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Ser Glu		
	420	425
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		
	435	440
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		
465	470	475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala		
	485	490
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		
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Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		
	530	535
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg		
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Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		
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Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		
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Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		
	595	600
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile		
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Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys		
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Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu		


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        645                650                655
Lys Glu Leu Val Gly Glu Ala Ile Arg Arg Gln Leu Ala Ser Ser Glu
        660                665                670
Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Met
        675                680                685
Leu Ser Glu Glu Leu Lys Trp Ala Ser Arg Pro Glu Ser Met Lys Leu
        690                695                700
Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
        705                710                715                720
Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
        725                730                735
Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
        740                745                750
Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
        755                760                765
Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
        770                775                780
Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
        785                790                795                800
Leu Glu Leu Ser Leu Arg Arg Ser Ser Leu Gly Val Gly Ile Gly Ser
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Met Ala Ala Asp Ser Ile Glu Val Ser Arg Lys Pro Arg Asp Leu Lys
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Thr

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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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180
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240
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300
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360
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420
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480
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660

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<210> 4236

<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

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			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr	
		35				40				45					
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
	50				55					60					
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
65					70				75					80	
Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
				85					90				95		
Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
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Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
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Met	Ile	Arg	Ile	Leu	His	Gly	Glu	Val	Asn	Lys	Val	Lys	Leu	Asp	Gln
	130				135					140					
Lys	Arg	Leu	Glu	Gln	Glu	Leu	Asp	Phe	Ile	Leu	Ser	Gln	Gln	Gln	Glu
145				150					155					160	
Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165					170					175		
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
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<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

<400> 4237

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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

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				20				25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
				35				40				45			
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
				50			55				60				
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65					70					75				80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
				85				90					95		
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
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Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
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<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 4239

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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

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Thr Phe Glu Ala Thr Gln Asp Asp Met Val Thr Val Pro Lys Ser Pro
50
Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met
65
Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln
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Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro
100
Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr
115
Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val
130
Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu
145
Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu
165
Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile
180
Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Leu
195
Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg
210
Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe
225
Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys
245
Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val
260
Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu
275
Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg
290
Lys Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn
305
Arg Thr Phe Pro Leu Arg Tyr Leu Glu Ala Ser Tyr Gly Leu Gly Gln
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Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly
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Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala
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Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro
370
Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile
385
Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser
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Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro
420
Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu

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      465              470              475              480
Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys
      485              490              495
Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu
      500              505              510
Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu
      515              520              525
Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val
      530              535              540
Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser
      545              550              555
Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg
      565              570              575
Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg
      580              585              590
His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr
      595              600              605
Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu
      610              615              620
Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe
      625              630              635              640
His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly
      645              650              655
Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala
      660              665              670
Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val
      675              680              685
Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp
      690              695              700
Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys
      705              710              715              720
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro
      725              730              735
Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu
      740              745              750
Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser
      755              760              765
Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg
      770              775              780
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys
      785              790              795              800
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr
      805              810              815
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser
      820              825              830
Gln Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser
      835              840              845
His Lys Leu Glu Pro Ala Val Arg Ser Ser Glu Leu
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<210> 4241
 <211> 479
 <212> DNA
 <213> Homo sapiens

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<210> 4242
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 4242
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 Cys Trp Lys Val Ser Pro His Ile Lys Met Asp Leu Leu Gln Trp Ile
 35 40 45
 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
 50 55 60
 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Phe Ile Gln
 65 70 75 80
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
 85 90 95
 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
 100 105 110
 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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<210> 4243
 <211> 3159
 <212> DNA
 <213> Homo sapiens

<400> 4243
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<210> 4244
 <211> 849
 <212> PRT
 <213> Homo sapiens

<400> 4244

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35      40      45
Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
50      55      60
Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
65      70      75      80
Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
85      90      95
Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
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Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
115     120     125
Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
130     135     140
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145     150     155     160
Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
165     170     175
Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
180     185     190
Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
195     200     205
Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
210     215     220
Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
225     230     235     240
Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
245     250     255
Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
260     265     270
Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
275     280     285
Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
290     295     300
Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
305     310     315     320
Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
325     330     335
Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
340     345     350
Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
355     360     365
Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp

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Leu Ser Tyr Gly Tyr Gln Gly His Asp Gln Phe Lys Arg Arg Leu Pro
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Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu
      420              425              430
Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile
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Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys
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Ile Ala Val Phe Tyr Ala Leu Pro Val Val Gln Leu Val Ile Thr Tyr
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Phe Leu Cys Ala His Pro Leu Gly Asn Leu Ser Ala Phe Asn Asn Ile
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Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile
      530              535              540
Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp
545              550              555              560
Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr
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Ala Met Gly Thr Ala Leu Met Met Glu Gly Leu Leu Ser Ala Cys Tyr
      580              585              590
His Val Cys Pro Asn Tyr Thr Asn Phe Gln Phe Asp Thr Ser Phe Met
      595              600              605
Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His
      610              615              620
Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile
625              630              635              640
Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr
      645              650              655
Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu
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Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly
      675              680              685
Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln
690              695              700
Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly
705              710              715              720
Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro
      725              730              735
Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
      740              745              750
Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
      755              760              765
Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
      770              775              780
Gly Phe Ala Leu Phe Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys
785              790              795              800
Thr Pro Ala Glu Ser Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp

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	805		810		815
Phe Phe Asp Asp His Asp Ile Trp His Phe Leu Ser Ser Ile Ala Met					
	820		825		830
Phe Gly Ser Phe Leu Val Ser Gly Pro Pro Gly Ala Ala Leu Arg Ile					
	835		840		845
Thr					

<210> 4245

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4245

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<210> 4246

<211> 303

<212> PRT

<213> Homo sapiens

<400> 4246

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      20           25           30
134 Asn Ala Gly Glu Glu Cys Lys Ser Leu Arg Gly Gln Leu Glu Glu Gln
      35           40           45
135 Gly Arg Gln Leu Gln Ala Ala Glu Glu Ala Val Glu Lys Leu Lys Ala
      50           55           60
136 Thr Gln Ala Asp Met Gly Glu Lys Leu Ser Cys Thr Ser Asn His Leu
      65           70           75           80
137 Ala Glu Cys Gln Ala Ala Met Leu Arg Lys Asp Lys Glu Gly Ala Ala
      85           90           95
138 Leu Arg Glu Asp Leu Glu Arg Thr Gln Lys Glu Leu Glu Lys Ala Thr
      100          105          110
139 Thr Lys Ile Gln Glu Tyr Tyr Asn Lys Leu Cys Gln Glu Val Thr Asn
      115          120          125
140 Arg Glu Arg Asn Asp Gln Lys Met Leu Ala Asp Leu Asp Asp Leu Asn
      130          135          140
141 Arg Thr Lys Lys Tyr Leu Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp
      145          150          155          160
142 Lys Asp Ala Leu Trp Gln Lys Ser Asp Ala Leu Glu Phe Gln Gln Lys
      165          170          175
143 Leu Ser Ala Glu Glu Arg Trp Leu Gly Asp Thr Glu Ala Asn His Cys
      180          185          190
144 Leu Asp Cys Lys Arg Glu Phe Ser Trp Met Val Arg Arg His His Cys
      195          200          205
145 Arg Ile Cys Gly Arg Ile Phe Cys Tyr Tyr Cys Cys Asn Asn Tyr Val
      210          215          220
146 Leu Ser Lys His Gly Gly Lys Lys Glu Arg Cys Cys Arg Ala Cys Phe
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147 Gln Lys Leu Ser Glu Gly Pro Gly Ser Pro Asp Ser Ser Gly Ser Gly
      245          250          255
148 Thr Ser Gln Gly Glu Leu Ser Pro Ala Leu Ser Pro Ala Ser Pro Gly
      260          265          270
149 Pro Gln Ala Thr Gly Gly Gln Gly Ala Asn Thr Asp Tyr Arg Pro Pro
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<210> 4247

<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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<210> 4248

<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

His Pro Leu Asp Lys Arg Thr Gly Glu Arg Glu Leu Gly Gly Lys Ser
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 Gly Glu Asp Arg Arg Gly Ala Pro Ala Gly Ala Thr Ser Phe Pro Ala
 20 25 30
 Ala Pro Ser Pro Leu Pro Leu His Thr His Ala Arg Ser Leu Ala Gly
 35 40 45
 Ala Arg Thr Pro Pro Ala Pro Asp Pro His Leu Gly Gly Arg His Thr
 50 55 60
 Leu Gly Ser Pro Ser Arg Gly Ser Arg Ser Gly Met Glu Ala Ala Arg
 65 70 75 80
 Thr Glu Arg Pro Ala Gly Arg Pro Gly Ala Pro Leu Val Arg Thr Gly
 85 90 95
 Leu Leu Leu Leu Ser Thr Trp Val Leu Ala Gly Ala Glu Ile Thr Trp
 100 105 110
 Asp Ala Thr Gly Gly Pro Gly Arg Pro Ala Ala Pro Ala Ser Arg Pro
 115 120 125
 Pro Ala Leu Ser Pro Leu Ser Pro Arg Ala Val Ala Ser Gln Trp Pro
 130 135 140
 Glu Glu Leu Ala Ser Ala Arg Arg Ala Ala Val Leu Gly Arg Arg Ala
 145 150 155 160
 Gly Pro Glu Leu Leu Pro Gln Gln Gly Gly Arg Gly Gly Glu Met
 165 170 175
 Gln Val Glu Ala Gly Gly Thr Ser Pro Ala Gly Glu Arg Arg Gly Arg
 180 185 190
 Gly Ile Pro Ala Pro Ala Lys Leu Gly Gly Ala Arg Arg Ser Arg Arg
 195 200 205
 Ala Gln Pro Pro Ile Thr Gln Glu Arg Gly Asp Ala Trp Ala Thr Ala

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210          215          220
Pro Ala Asp Gly Ser Arg Gly Ser Arg Pro Leu Ala Lys Gly Ser Arg
225          230          235          240
Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu
          245          250          255
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn
          260          265          270
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile
          275          280          285
Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser
          290          295          300
Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp
305          310          315          320
Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr
          325          330          335
Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser
          340          345          350
Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu
          355          360          365
Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp
          370          375          380
Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe
385          390          395          400
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe
          405          410          415
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met
          420          425          430
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile
          435          440          445
Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile
          450          455          460
Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val
465          470          475          480
Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala
          485          490          495
Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His
          500          505          510
Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp
          515          520          525
Asn Gln Asn Asp Thr Tyr Asn Leu Tyr Ile Ser Asp Thr Arg Gly Ile
          530          535          540
Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met
545          550          555          560
Gly Asn Ile Ile Ile Glu Leu Tyr Glu Val Ala Gly Ile Lys Gly Ile
          565          570          575
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr
          580          585          590
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp
          595          600          605
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His
          610          615          620
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser
625          630          635          640
Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly

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645 650 655
 Pro Glu Leu Ser Tyr Thr Asp Ile Gly Val Phe Ile Ser Ser Asp Gly
 660 665 670
 Gly Asn Thr Trp Arg Gln Ile Phe Asp Glu Glu Tyr Asn Val Trp Phe
 675 680 685
 Leu Asp Trp Gly Gly Ala Leu Val Ala Met Lys His Thr Pro Leu Pro
 690 695 700
 Val Arg His Leu Trp Val Ser Phe Asp Glu Gly His Ser Trp Asp Lys
 705 710 715 720
 Tyr Gly Phe Thr Ser Val Pro Leu Phe Val Asp Gly Ala Leu Val Glu
 725 730 735
 Ala Gly Met Glu Thr His Ile Met Thr Val Phe Gly His Phe Ser Leu
 740 745 750
 Arg Ser Glu Trp Gln Leu Val Lys Val Asp Tyr Lys Ser Ile Phe Ser
 755 760 765
 Arg His Cys Thr Lys Glu Asp Tyr Gln Thr Trp His Leu Leu Asn Gln
 770 775 780
 Gly Glu Pro Cys Val Met Gly Glu Arg Lys Ile Phe Lys Lys Arg Lys
 785 790 795 800
 Pro Gly Ala Gln Cys Ala Leu Gly Arg Asp His Ser Gly Ser Val Val
 805 810 815
 Ser Glu Pro Cys Val Cys Ala Asn Trp Asp Phe Glu Cys Asp Tyr Gly
 820 825 830
 Tyr Glu Arg His Gly Glu Ser Gln Cys Val Pro Ala Phe Trp Tyr Asn
 835 840 845
 Pro Ala Ser Pro Ser Lys Asp Cys Ser Leu Gly Gln Ser Tyr Leu Asn
 850 855 860
 Ser Thr Gly Tyr Arg Arg Ile Val Ser Asn Asn Cys Thr Asp Gly Leu
 865 870 875 880
 Arg Glu Lys Tyr Thr Ala Lys Ala Gln Met Cys Pro Gly Lys Ala Pro
 885 890 895
 Arg Gly Leu His Val Val Thr Thr Asp Gly Arg Leu Val Ala Glu Gln
 900 905 910
 Gly His Asn Ala Thr Phe Ile Ile Leu Met Glu Glu Gly Asp Leu Gln
 915 920 925
 Arg Thr Asn Ile Gln Leu Asp Phe Gly Asp Gly Ile Ala Val Ser Tyr
 930 935 940
 Ala Asn Phe Ser Pro Ile Glu Asp Gly Ile Lys His Val Tyr Lys Ser
 945 950 955 960
 Ala Gly Ile Phe Gln Val Thr Ala Tyr Ala Glu Asn Asn Leu Gly Ser
 965 970 975
 Asp Thr Ala Val Leu Phe Leu His Val Val Cys Pro Val Glu His Val
 980 985 990
 His Leu Arg Val Pro Phe Val Ala Ile Arg Asn Lys Glu Val Asn Ile
 995 1000 1005
 Ser Ala Val Val Trp Pro Ser Gln Leu Gly Thr Leu Thr Tyr Phe Trp
 1010 1015 1020
 Trp Phe Gly Asn Ser Thr Lys Pro Leu Ile Thr Leu Asp Ser Ser Ile
 1025 1030 1035 1040
 Ser Phe Thr Phe Leu Ala Glu Gly Thr Asp Thr Ile Thr Val Gln Val
 1045 1050 1055
 Ala Ala Gly Asn Ala Leu Ile Gln Asp Thr Lys Glu Ile Ala Val His
 1060 1065 1070
 Glu Tyr Phe Gln Ser Gln Leu Leu Ser Phe Ser Pro Asn Leu Asp Tyr

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1075          1080          1085
His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile
1090          1095          1100
Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu
1105          1110          1115          1120
Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
1125          1130          1135
Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
1140          1145          1150
Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val
1155          1160          1165
Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln
1170          1175          1180
Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
1185          1190          1195          1200
Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
1205          1210          1215
Leu Ile Tyr Lys Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
1220          1225          1230
Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
1235          1240          1245
Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
1250          1255          1260
Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
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Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser
1285          1290          1295
Val

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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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120
cccagcagc aacatggtta aattcgcaat gcctcaggca tcaaccagag agtaccaggc
180
ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaccgc
240
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300
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360
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420
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<210> 4250

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4250

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20 25 30
Met Ile Tyr Lys Asn Ala Lys Thr Pro Ser Thr Gln His Gly Lys Ile
35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu
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Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu
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Thr Pro Ile Ser

<210> 4251

<211> 1574

<212> DNA

<213> Homo sapiens

<400> 4251

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480

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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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Thr	Asp	Pro	Asp	Pro	Glu	Ser	Gln	Glu	Leu	Gln	Ile	Gly	Gly	Thr	Cys
		20					25						30		
Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
		35					40				45				
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
	50				55						60				
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

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Met Lys Ser Ile Arg Gln Asp Leu Thr Val Gln Gly Ile Arg Thr Glu
      85          90          95
Phe Thr Val Glu Val Tyr Glu Thr His Ala Arg Ile Ala Leu Glu Lys
      100          105          110
Gly Asp His Glu Glu Phe Asn Gln Cys Gln Thr Gln Leu Lys Ser Leu
      115          120          125
Tyr Ala Glu Asn Leu Pro Gly Asn Val Gly Glu Phe Thr Ala Tyr Arg
      130          135          140
Ile Leu Tyr Tyr Ile Phe Thr Lys Asn Ser Gly Asp Ile Thr Thr Glu
      145          150          155
Leu Ala Tyr Leu Thr Arg Glu Leu Lys Ala Asp Pro Cys Val Ala His
      160          165          170
Ala Leu Ala Leu Arg Thr Ala Trp Ala Leu Gly Asn Tyr His Arg Phe
      175          180          185
Phe Arg Leu Tyr Cys His Ala Pro Cys Met Ser Gly Tyr Leu Val Asp
      190          195          200
Lys Phe Ala Asp Arg Glu Arg Lys Val Ala Leu Lys Ala Met Ile Lys
      205          210          215
Thr Tyr Val Val Pro Ser Ser Leu Leu Pro Leu Leu Phe Pro Ser Phe
      220          225          230
Arg Leu Ala Pro Pro Leu Arg Pro Ala Pro Gly Arg Arg Pro Pro Pro
      235          240          245
Ala Pro Asn Pro Cys Pro Gly Pro Cys Phe Pro Ile Ile Phe Leu His
      250          255          260
Ser Ala Leu Pro Ser Pro Val Pro Leu Ala Leu Leu Val Gly His Leu
      265          270          275
Cys Val Pro Gly His Ser Ser Pro Ser Pro His Cys Ser Gln Leu Thr
      280          285          290
Ala Ser Gly Ala Ser Ser Pro Pro His Leu Cys Val Ser Ser Ser Cys
      295          300          305
Ser Leu Leu Pro Gly Pro Pro Ser Ser Leu Leu Ala Leu Gly Phe Leu
      310          315          320
Arg Thr Leu Arg Ser Leu Leu Ser Gln Leu Val Ala Val Leu Pro Pro
      325          330          335
      340          345          350

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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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180
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240
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300
tggtgcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc
360

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<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35				40					45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50			55				60					
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70				75					80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
				85				90						95	
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
				100				105						110	

Asp Gly

<210> 4255

<211> 2205

<212> DNA

<213> Homo sapiens

<400> 4255

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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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 Pro Thr Arg Lys Gln Trp Tyr Leu His Ala Val Ala Asn Pro Gly Leu
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 Ile Ser Leu Thr Gly Pro Tyr Leu Asp Val Gly Gly Ala Gly Tyr Val
 65 70 75 80
 Val Thr Ile Ser His Thr Ile His Ser Ser Thr Gln Leu Ser Ser
 85 90 95
 Gly His Thr Val Ala Val Met Gly Ile Asp Phe Thr Leu Arg Tyr Phe
 100 105 110
 Tyr Lys Val Leu Met Asp Leu Leu Pro Val Cys Asn Gln Asp Gly Gly
 115 120 125
 Asn Lys Ile Arg Cys Phe Ile Met Glu Asp Arg Gly Tyr Leu Val Ala
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 His Pro Thr Leu Ile Asp Pro Lys Gly His Ala Pro Val Glu Gln Gln

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His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
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Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
180          185          190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
195          200          205
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
210          215          220
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225          230          235          240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
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His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
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Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
275          280          285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
290          295          300
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305          310          315
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
320          325          330          335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
340          345          350
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro
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Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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540

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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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 35 40 45
 His Pro Tyr Val Phe Phe Asn Asp Asp His Thr Thr Met Thr Phe Ile
 50 55 60
 Gly Phe His Leu Gln Pro Asn Ile Asn Gly Ser Val Asp Ala Ile Ser
 65 70 75 80
 His Leu Thr Gly Lys Val Ile Lys Arg Asp Val Met Thr Arg Asp Leu
 85 90 95
 Tyr Gln Gly Leu Leu Leu Gln Arg Val Pro Phe Asn Val Asp Phe Asp

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Lys Leu Pro Arg His Lys Lys Leu Glu Arg Leu Cys Leu Thr Leu Gly
          115          120          125
Ile Pro Gln Ala Thr Asp Pro Asp Lys Thr Tyr Glu Leu Thr Thr Asp
          130          135          140
Asn Met Leu Lys Ile Leu Ala Ile Glu Met Arg Phe Arg Cys Gly Ile
          145          150          155          160
Pro Val Ile Ile Met Gly Glu Thr Gly Cys Gly Lys Thr Arg Leu Ile
          165          170          175
Lys Phe Leu Ser Asp Leu Arg Arg Gly Gly Thr Asn Ala Asp Thr Ile
          180          185          190
Lys Leu Val Lys Val His Gly Gly Thr Thr Ala Asp Met Ile Tyr Ser
          195          200          205
Arg Val Arg Glu Ala Glu Asn Val Ala Phe Ala Asn Lys Asp Gln His
          210          215          220
Gln Leu Asp Thr Ile Leu Phe Phe Asp Glu Ala Asn Thr Thr Glu Ala
          225          230          235          240
Ile Ser Cys Ile Lys Glu Val Leu Cys Asp His Met Val Asp Gly Gln
          245          250          255
Pro Leu Ala Glu Asp Ser Gly Leu His Ile Ile Ala Ala Cys Asn Pro
          260          265          270
Tyr Pro Glu Asn Ser Glu Glu Met Ile Cys Arg Leu Glu Ser Ala Gly
          275          280          285
Leu Gly Tyr Arg Val Ser Met Glu Glu Thr Ala Asp Arg Leu Gly Ser
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Ile Pro Leu Gly Tyr Thr Cys Thr Gln Arg
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<210> 4259

<211> 377

<212> DNA

<213> Homo sapiens

<400> 4259

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<210> 4260

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4260

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          35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
          50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
          65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
          85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
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<210> 4261

<211> 592

<212> DNA

<213> Homo sapiens

<400> 4261

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<210> 4262

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4262

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Glu	His	Leu	Glu	Val	Ala
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Ser	Pro	Ile	Ser	Arg	Lys
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Thr	Lys	Ser	Glu	Leu	Arg
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<210> 4263

<211> 7710

<212> DNA

<213> Homo sapiens

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<210> 4264

<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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Met	Gln	Lys	Phe	Leu	Gly	Ser	Tyr	Phe	Ile	Thr	Trp	Asp	Glu	Asp	Met
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Phe	Asp	Glu	Glu	Thr	Gly	Glu	Gly	Pro	Leu	Val	Asn	Thr	Ser	Asp	Leu
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Asn	Glu	Glu	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Thr	Asp	Lys	Thr	Gly
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Thr	Leu	Thr	Glu	Asn	Asn	Met	Glu	Phe	Lys	Glu	Cys	Cys	Ile	Glu	Gly
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His	Val	Tyr	Val	Pro	His	Val	Ile	Cys	Asn	Gly	Gln	Val	Leu	Pro	Glu
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Ser	Ser	Gly	Ile	Asp	Met	Ile	Asp	Ser	Ser	Pro	Ser	Val	Asn	Gly	Arg
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Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
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Gln	Val	Lys	Asp	Asp	Asp	Ser	Val	Asp	Gly	Pro	Arg	Lys	Ser	Pro	Asp
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Gly	Gly	Lys	Ser	Cys	Val	Tyr	Ile	Ser	Ser	Ser	Pro	Asp	Glu	Val	Ala
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Leu	Val	Glu	Gly	Val	Gln	Arg	Leu	Gly	Phe	Thr	Tyr	Leu	Arg	Leu	Lys
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Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
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Val	Ile	Val	Lys	Ser	Ala	Thr	Gly	Glu	Ile	Tyr	Leu	Phe	Cys	Lys	Gly
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Ile	Arg	Ala	Arg	Val	Glu	Arg	Asn	Ala	Val	Glu	Gly	Leu	Arg	Thr	Leu
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Cys	Val	Ala	Tyr	Lys	Arg	Leu	Ile	Gln	Glu	Glu	Tyr	Glu	Gly	Ile	Cys

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355              360              365
Arg Asn Thr Gln Leu Leu Glu Leu Thr Thr Lys Arg Ile Glu Glu Gln
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Ser Gly Ser Leu Thr Arg Asp Asn Leu Ser Gly Leu Ser Ala Asp Met
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Gln Asp Tyr Gly Leu Ile Ile Asp Gly Ala Ala Leu Ser Leu Ile Met
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515              520              525
Lys Met Leu Leu Val His Gly His Phe Tyr Tyr Ile Arg Ile Ser Glu
530              535              540
Leu Val Gln Tyr Phe Phe Tyr Lys Asn Val Cys Phe Ile Phe Pro Gln
545              550              555
Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser Gln Gln Thr Val His Asp
565              570              575
Thr Ala Tyr Leu Thr Leu Tyr Asn Ile Ser Phe Thr Ser Leu Pro Ile
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Leu Leu Tyr Ser Leu Met Glu Gln His Val Gly Ile Asp Val Leu Lys
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Arg Asp Pro Thr Leu Tyr Arg Asp Val Ala Lys Asn Ala Leu Leu Arg
610              615              620
Trp Arg Val Phe Ile Tyr Trp Thr Leu Leu Gly Leu Phe Asp Ala Leu
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Val Phe Phe Phe Gly Ala Tyr Phe Val Phe Glu Asn Thr Thr Val Thr
645              650              655
Ser Asn Gly Gln Ile Phe Gly Asn Trp Thr Phe Gly Thr Leu Val Phe
660              665              670
Thr Val Met Val Phe Thr Val Thr Leu Lys Leu Ala Leu Asp Thr His
675              680              685
Tyr Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Leu Phe
690              695              700
Tyr Val Val Phe Ser Leu Leu Trp Gly Gly Val Ile Trp Pro Phe Leu

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Asn Tyr Gln Arg Met Tyr Tyr Val Phe Ile Gln Met Leu Ser Ser Gly
              725              730              735
Pro Ala Trp Leu Ala Ile Val Leu Leu Val Thr Ile Ser Leu Leu Pro
              740              745              750
Asp Val Leu Lys Lys Val Leu Cys Arg Gln Leu Trp Pro Thr Ala Thr
              755              760              765
Glu Arg Val Gln Thr Lys Ser Gln Cys Leu Ser Val Glu Gln Ser Thr
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Ile Phe Met Leu Ser Gln Thr Ser Ser Ser Leu Ser Phe
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<210> 4265

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<210> 4266

<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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His Met Gly Phe Asn Asp Asp Arg Arg Phe Pro Asp Phe Ser Tyr Ile			
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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser			
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His Phe His Leu Asp His Cys Gly Ala Leu Pro Tyr Phe Ser Glu Met			
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile			
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Cys Pro Ile Leu Leu Glu Asp Tyr Arg Lys Ile Ala Val Asp Lys Lys			
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Gly Glu Ala Asn Phe Phe Thr Ser Gln Met Ile Lys Asp Cys Met Lys			
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu			
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Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met			
	165	170	175
Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr			
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Asn Met Thr Pro Asp Arg His Leu Gly Ala Ala Trp Ile Asp Lys Cys			
	195	200	205
Arg Pro Asn Leu Leu Ile Thr Glu Ser Thr Tyr Ala Thr Thr Ile Arg			
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Asp Ser Lys Arg Cys Arg Glu Arg Asp Phe Leu Lys Lys Val His Glu			
	225	230	235
Thr Val Glu Arg Gly Gly Lys Val Leu Ile Pro Val Phe Ala Leu Gly			
	245	250	255
Arg Ala Gln Glu Leu Cys Ile Leu Leu Glu Thr Phe Trp Glu Arg Met			
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Asn Leu Lys Val Pro Ile Tyr Phe Ser Thr Gly Leu Thr Glu Lys Ala			
	275	280	285
Asn His Tyr Tyr Lys Leu Phe Ile Pro Trp Thr Asn Gln Lys Ile Arg			
	290	295	300
Lys Thr Phe Val Gln Arg Asn Met Phe Glu Phe Lys His Ile Lys Ala			
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Gln Gly Thr Val Gly His Lys Ile Leu Ser Gly Gln Arg Lys Leu Glu			
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Gln Ala Glu Pro Glu Ser Val Leu Leu Val His Gly Glu Ala Lys Lys			
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Met Glu Phe Leu Lys Gln Lys Ile Glu Gln Glu Leu Arg Val Asn Cys			

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Ile Met Lys Asp Ser Asn Phe Arg Leu Val Ser Ser Glu Gln Ala Leu
          500          505          510
Lys Glu Leu Gly Leu Ala Glu His Gln Leu Arg Phe Thr Cys Arg Val
          515          520          525
His Leu His Asp Thr Arg Lys Glu Gln Glu Thr Ala Leu Arg Val Tyr
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Ser His Leu Lys Ser Val Leu Lys Asp His Cys Val Gln His Leu Pro
          545          550          555          560
Asp Gly Ser Val Thr Val Glu Ser Val Leu Leu Gln Ala Ala Ala Pro
          565          570          575
Ser Glu Asp Pro Gly Thr Lys Val Leu Leu Val Ser Trp Thr Tyr Gln
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<210> 4267

<211> 2230

<212> DNA

<213> Homo sapiens

<400> 4267

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<210> 4268

<211> 210
 <212> PRT
 <213> Homo sapiens

<400> 4268
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 35 40 45
 Lys Arg Cys Glu Ser Cys Ser Gln Lys Leu Glu Arg Glu Asn Asn His
 50 55 60
 Cys Asn Ile Ser His Ser Ile Ile Leu Asn Ser Glu Asp Gly Glu Ile
 65 70 75 80
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 His Phe Arg Asn Asp Thr Asn Thr Gln Ser Phe Tyr His Glu Lys Trp
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 Ile Tyr Val His Lys Glu Ser Thr Lys Glu Arg His Gly Tyr Cys Thr
 115 120 125
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 <213> Homo sapiens

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<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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<213> Homo sapiens

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<211> 134

<212> PRT

<213> Homo sapiens

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1560

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 1680
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 1740
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 1860
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 1920
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 1980
 ttaccctctt cactcttggc tttcttatgt tgctttcatg aatggaatgg aaaaaagatg
 2040
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
			50				55				60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu	
65					70				75				80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115					120				125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
			130				135				140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145					150					155				160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170						175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180					185					190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
			195					200				205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
			210					215					220		
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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 120
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 180
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 240
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 300
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 360
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 420
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 480
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 540
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 660
 aagcagtc aaagacctggc cctggcggca gaggcgctgc ggggtggccc gggtcacctg
 720
 acccggtc caagtgagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
 780
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 874

<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

Met	Gln	Val	Ala	Leu	Gly	Ala	His	Leu	Arg	Asp	Ala	Arg	Arg	Gly	Gln
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Arg	Leu	Arg	Ser	Gly	Ala	His	Val	Val	Thr	Gly	Pro	Pro	Asn	Ala	
				20					25				30		
Gly	Lys	Ser	Ser	Leu	Val	Asn	Leu	Leu	Ser	Arg	Lys	Pro	Val	Ser	Ile
				35				40				45			
Val	Ser	Pro	Glu	Pro	Gly	Thr	Thr	Arg	Asp	Val	Leu	Glu	Thr	Pro	Val
				50			55				60				
Asp	Leu	Ala	Gly	Phe	Pro	Val	Leu	Leu	Ser	Asp	Thr	Ala	Gly	Leu	Arg

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65          70          75          80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
85
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
100
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
115
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Val
130
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
165
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
180
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His
195
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
210
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Ile Leu Asp Ile Ile
245
Phe Gln Asp Phe Cys Val Gly Lys
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<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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120
aggaccagg ccgcggttc agctctgcc gccacgggc cgcagcattt ttgaaacgtt
180
gggtgtgttg gagtgtgttg attttcctg gaattgagt agaaattcac aagactgaag
240
cccaggctta ctgtctacct ttacggagg cctagccgtg agaggacaga agaaggcacg
300
tggcgaatca tgacagcga caaagacaaa gacaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgaaga ttcaaggcca
420
cgccggagct gtaccttga aggaggagcc aaaaattatg ctgagagtga tcacagtga
480
gacgaggaga atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
540
aaaccaccga aaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gagtccggag
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag
 720
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 780
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 840
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 900
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 960
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<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

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Arg	Asp	Arg	Asp	Arg	Glu	Arg	Glu	Lys	Arg	Asp	Lys	Ala	Arg
			20				25					30	Glu
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly
			35				40					45	Ala
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp
			50			55					60	Asn	Asn
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Pro
			65			70				75			80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile
			85					90				95	Thr
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys
			100					105				110	Val
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser
			115			120					125		Ile
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser
			130			135					140		Pro
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala
			145			150				155			Ser
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly
			165					170				175	Ser
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Arg	Gln	Ser
			180					185				190	Glu
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His
			195			200					205		Asn
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile
			210			215				220			Lys
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala
			225			230				235			Ala
Leu	Arg	Gly	Lys	Cys	Asn	Ile	Leu	His	Phe	Ser	Asp	Ile	
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<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

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240
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300
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420
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720
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 1920
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 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

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 20 25 30
 Val Ser Asp Asp Val Asn Glu Tyr Ala Met Ala Leu Arg Asp Thr Glu
 35 40 45
 Asp Lys Leu Arg Arg Cys Pro Lys Arg Arg Lys Asp Ile Leu Ala Glu
 50 55 60
 Leu Thr Lys Ser Gln Lys Val Phe Ser Glu Lys Leu Asp His Leu Ser
 65 70 75 80
 Arg Arg Leu Ala Trp Val His Ala Thr Val Tyr Ser Gln Glu Lys Met
 85 90 95
 Leu Asp Ile Tyr Trp Leu Leu Arg Val Cys Leu Arg Thr Ile Glu His
 100 105 110
 Gly Asp Arg Thr Gly Ser Leu Phe Ala Phe Met Pro Glu Phe Tyr Leu
 115 120 125
 Ser Val Ala Ile Asn Ser Tyr Ser Ala Leu Lys Asn Tyr Phe Gly Pro
 130 135 140
 Val His Ser Met Glu Glu Leu Pro Gly Tyr Glu Glu Thr Leu Thr Arg
 145 150 155 160
 Leu Ala Ala Ile Leu Ala Lys His Phe Ala Asp Ala Arg Ile Val Gly
 165 170 175
 Thr Asp Ile Arg Asp Ser Leu Met Gln Ala Leu Ala Ser Tyr Val Cys
 180 185 190
 Tyr Pro His Ser Leu Arg Ala Val Glu Arg Ile Pro Glu Glu Gln Arg
 195 200 205
 Ile Ala Met Val Arg Asn Leu Leu Ala Pro Tyr Glu Gln Arg Pro Trp
 210 215 220
 Ala Gln Thr Asn Trp Ile Leu Val Arg Leu Trp Arg Gly Cys Gly Phe
 225 230 235 240
 Gly Tyr Arg Tyr Thr Arg Leu Pro His Leu Leu Lys Thr Lys Leu Glu

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                245                250                255
Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
                370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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120
gctgactctg agaggcagtg ggcctccccc cagcacctcc cccatcacca ttgttagggc
180

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 300
 tcaggcatgg atgcaggtgg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
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<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

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Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
			35				40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
			50			55					60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65					70					75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85						90					95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

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 120
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 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgtccgg cacaacttgc gtctctccag
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 300
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 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
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 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
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 180
 atatgggtgat gccacgctg cagtctgacc cctgaccctc ctctgaacct gtccccca
 240
 cgggatctgg cagtgaccac cagaacctgg agccccctg agtccagact tccctcaccc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
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 420
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 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
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 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
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 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

			20					25				30			
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu
			35				40					45			
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala
			50			55					60				
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp
			65			70				75					80
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser
				85					90					95	
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala						
			100					105							

<210> 4287

<211> 868

<212> DNA

<213> Homo sapiens

<400> 4287

4005 4287
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120 cggaaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
180 tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctcacca
240 gctttgacat ccatatcttc agagccttcg gaagcttggg tccaggcctt cgcattctat
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360 cagctgggac cggaaacact tgccaatgag acggccgccc gtgctgcca ctagtgccgc
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540 acgacctag ccgccgaggc tcagggggccc acccctgagc cacccttgc ttctccgcag
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660 cagtcccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
720 gcattctctc aggctccgtg tgccagggag gtggagccca accggcccg cacagccttc
780 ctggggcaga atgatgtctt cgatttcact cagccggcag tgtcagtggc atggcttccc
840 gcgcccaaga gacctgcccc gccaaagag
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<210> 4288

 $\langle 211 \rangle$ 240

<212> PRT

<213> Homo sapiens

<400> 4288

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Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
100           105           110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
115           120           125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
130           135           140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
145           150           155           160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
165           170           175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
180           185           190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
195           200           205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
210           215           220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
225           230           235           240

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<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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120
caaagagcct ttgggaaca gttttcttat tgaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagtcac catggcatcc ttgtctctgt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtgagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
300
gccccgtgtt ttggagtcct tgtctgagg ccgctgtaac ttgcggagag ttg
353

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<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

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Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
100           105           110
Leu
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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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caagcagtcga ctccctcagc ccatcatcac acagattatt caaagcccac cgatatctca
120
tggaagagaca cactttctca gaagtttgga tcctcagatc acttggagaa actatttaag
180
atggatgaag caagtgcaca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgtcccca
300
gctcaggtgg cagttgcttc tccacatacc acctcggtca ctccaaagcc cgccaccctt
360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggcaccacca
420
gctccacctg taacctactg cacttctcag cctcccacga ccttcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517
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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```
Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp
```



```

      1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Thr Leu Tyr Glu Ile Asn Ile
      130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165          170          175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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agcccaactgc tggctccttg ttttgtaaat aagatttggt ggactacagc tatgcccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagacccccca ttgccacaaa gcttaaaaca ttggccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcggtg aggtctggag ttgaaacca gcctggccag cgtggcgaaa cctgtctccc
360
ccctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg
420
cgtgccaacc a
431

```

<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

```

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```

```

      1           5           10           15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile
      20           25           30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys
      35           40           45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile
      50           55           60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe
      65           70           75           80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu
      85           90           95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp
      100          105          110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile
      115          120          125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu
      130          135

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<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt ggggtataaag gtcaaccaag tgtcagctgc agttggaaaa
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gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccatccttca tattctccca accaaagcaa gcacagcaca
300
tggggagaagg gcatttggca tctgctgccc ccagggtctt cctcatecac catctctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacacctctg ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaagggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataaag tggaaatcac aactgactca cacttcccca gacaggacca gttgcctca
720
tttccaaaaa actgcactct ggaattaaag ggaactcttc attttgaaga aggcattccg
780
aagctgtatc atgcaatgg gatgcctgg aaagcctgga gtcccaaac caagtagtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggct gcccaagcct gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcgggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcattgct gccactggga gtggatcggt
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggcctt ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acagggggcc
 1260
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 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaanaat ggacattttt
 1380
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 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaaggtt tgtttattcc
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 1560
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 1620
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<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa Met Asp Ser Ala Phe Val Gly Ile Lys Val Asn Gln Val Ser Ala
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 20 25 30
 Asp Pro Gly Met Ser Thr Lys Met Trp Asn Ile Ala Ile Thr Tyr Asp
 35 40 45
 Gly Leu Glu Glu Asp Asp Glu Val Phe Glu Val Ile Leu Asn Ser Pro
 50 55 60
 Val Asn Ala Val Leu Gly Thr Lys Thr Lys Ala Ala Val Lys Ile Leu
 65 70 75 80
 Asp Ser Lys Gly Gly Gln Cys His Pro Ser Tyr Ser Ser Asn Gln Ser
 85 90 95
 Lys His Ser Thr Trp Glu Lys Gly Ile Trp His Leu Leu Pro Pro Gly
 100 105 110
 Ser Ser Ser Thr Thr Ser Gly Ser Phe His Leu Glu Arg Arg Pro
 115 120 125
 Leu Pro Ser Ser Met Gln Leu Ala Val Ile Arg Gly Asp Thr Leu Arg
 130 135 140
 Gly Phe Asp Ser Thr Asp Leu Ser Gln Arg Lys Leu Arg Thr Arg Gly
 145 150 155 160
 Asn Gly Lys Thr Val Arg Pro Ser Ser Val Tyr Arg Asn Gly Thr Asp

Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
 165 170 175
 180 185 190
 Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
 195 200 205
 Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
 210 215 220
 Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
 225 230 235 240
 Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
 245 250 255
 Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
 260 265 270
 Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
 275 280 285
 Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
 290 295 300
 Gly Thr Trp Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
 305 310 315 320
 Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
 325 330 335
 Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
 340 345 350
 Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
 355 360 365
 Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
 370 375 380
 Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
 385 390 395 400
 Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
 405 410

<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

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 120
 ccttgggaca ggcccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
 180
 cagcagacca tatatcactc agttctctct ggaggctcat cttccagcag ccaactcgctc
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 300
 tggtcaggat ttgcggcat ttcacctgcg tttctgcat tttctgaatg ttcaccaagt
 360
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 420
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 480

gctgcaggca gcgagtgggtg cgggcccgcgt gcattctcttc actgtcacgc aggggtcttct
 540
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 600
 cccacttggtg ctctctcttc tctccatggc ggctgtggg gctcagcacc tcttcaagct
 660
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 720
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 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

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Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
		20					25						30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
		50				55					60				
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70					75				80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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 180
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720
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1440
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1920

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 2100
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 2280
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 2429

<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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Gly	Asn	Leu	Ala	His	Val	Glu	Lys	Val	Glu	Ser	Leu	Ser	Ser	Asp	Gly
			20					25						30	
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
			35				40					45			
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
			50			55				60					
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
				70					75					80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
				85				90					95		
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
			100				105						110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
			115				120					125			
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
			130			135					140				
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
				150					155					160	
Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
				165				170					175		
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			180					185					190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
			195				200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
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[illegible]

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<212> DNA
<213> Homo sapiens

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Lys  Leu  Leu  Phe  Gln  Glu  Ala  His  Asn  Gly  Pro  Ala  Val  Glu  Ala  Gln
20         25         30
Glu  Glu  Glu  Glu  Glu  Gln  Asp  His  Gly  Val  Gly  Arg  Thr  Gly  Thr  Val
35         40         45
Asn  Ser  Val  Gly  Ser  Asn  Gln  Ser  Ile  Pro  Ser  Met  Ser  Ile  Ser  Ala

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Ser Ser Val Ile His Leu Lys Pro Glu Glu Asn Tyr Arg Glu Glu				
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Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val				
	115	120	125	
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile				
	130	135	140	
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp				
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Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln				
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His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met				
	180	185	190	
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Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala				
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<212> DNA

<213> Homo sapiens

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<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
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Asn	Arg	Phe	Ala	Arg	Leu	Pro	Pro	Ala	Val	Ala	Glu	Leu	Gly	His	His
				100				105					110		
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Glu	Val	Val	Ser	Ala	Leu	Arg	Glu	Leu	Arg	Lys	Leu	Asn	Leu	Ser	His
				130				135					140		
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Leu	Ser	Cys	Leu	Ser	Arg	Leu	Arg	Thr	Leu	Asp	Val	Asp	His	Asn	Gln
				180				185					190		
Leu	Thr	Ala	Phe	Pro	Arg	Gln	Leu	Leu	Gln	Leu	Val	Ala	Leu	Glu	Glu
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Leu	Asp	Val	Ser	Ser	Asn	Arg	Leu	Arg	Gly	Leu	Pro	Glu	Asp	Ile	Ser
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Ala	Leu	Arg	Ala	Leu	Lys	Ile	Leu	Trp	Leu	Ser	Gly	Ala	Glu	Leu	Gly
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Thr	Leu	Pro	Ala	Gly	Phe	Cys	Glu	Leu	Ala	Ser	Leu	Glu	Ser	Leu	Met
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Gln	Arg	Leu	Lys	Met	Leu	Asn	Leu	Ser	Ser	Asn	Leu	Phe	Glu	Glu	Phe
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His	Lys	Ala	Ala	Gly	Lys	Thr	Leu	Leu	Arg	His	Cys	Leu	Thr	Glu	Glu
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Arg	Val	Glu	Gly	Cys	Pro	Gly	Gly	Gly	Asp	Lys	Glu	Lys	Cys	Tyr	Pro
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Pro	Ser	Pro	Pro	Pro	Val	Ser	Lys	Gly	Ile	Glu	Val	Thr	Ser	Trp	Thr
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Asp	Glu	Ser	Tyr	Glu	Val	Ile	Gln	Pro	Phe	Phe	Leu	Ser	Pro	Gly	Ala
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Leu	Tyr	Val	Leu	Val	Val	Asn	Leu	Ala	Thr	Tyr	Glu	Pro	Arg	His	Phe

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Arg	Glu	Leu	Glu	Glu	Lys	Cys	Leu	Asp	Ile	His	Arg	Gln	Ile	Ala	Leu														
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Gln	Glu	Lys	His	Asp	Ala	Glu	Gly	Leu	Ser	Arg	Leu	Ala	Lys	Val	Val														
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His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser
          980          985          990
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro
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          1010          1015          1020
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<211> 947

<212> DNA

<213> Homo sapiens

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<210> 4308

<211> 200

<212> PRT

<213> Homo sapiens

<400> 4308

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Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65             70             75             80
Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85             90             95
Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
100             105             110
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115             120             125
Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
130             135             140
Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
145             150             155             160
Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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<210> 4309

<211> 1928

<212> DNA

<213> Homo sapiens

<400> 4309

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360
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420

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caataacata tccaaagcct ttggtattg ttgacgttc tgctgaattg ttacttcaact
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catatcaaca tcatitttgc ttaccgagtt ttctccgat gtgcagccta agtctacttt
600
caggacatgc agcaggtggc gcattttttc ctctccaaa tgtttatttt gttttatatg
660
tcgctcgaac agtcgttcta aaaacctgtt tgaaaataaa ccaagtttca aaatttcatac
720
tgttacatct tcaatgaaac tcagatacaa cagttcttct tcactcagag agatttttacg
780
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840
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1020
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1380
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1680
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1740
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1800
tctgggaagg acagagggtg ctctgactct ccggtgccta ttcagtctta gtctcttgcg
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1920
tggaggagc
1928

<210> 4310

<211> 599

<212> PRT

<213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
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Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
 20          25          30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
 35          40          45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
 50          55          60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
 65          70          75          80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
 85          90          95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
100          105          110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
115          120          125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
130          135          140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
145          150          155          160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
165          170          175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
180          185          190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
195          200          205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
210          215          220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
225          230          235          240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
245          250          255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
260          265          270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
275          280          285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
290          295          300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
305          310          315          320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
325          330          335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
340          345          350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Tyr Leu
355          360          365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
370          375          380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385              390              395              400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
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Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
              420              425              430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
              435              440              445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
              450              455              460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
              465              470              475
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
              485              490              495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
              500              505              510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
              515              520              525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
              530              535              540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
              545              550              555
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
              565              570              575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
              580              585              590
Glu Asp Cys Pro Leu Asp Val
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<210> 4311

<211> 432

<212> DNA

<213> Homo sapiens

<400> 4311

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120
aaaaacataa ccaactggggc atctgcagca tccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctgcctctta gttgtcctta ctttagaaat
300
gagactggag gggaaaggcga caggcggatt gcgcctcttc gagccaactc atcctctttc
360
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432

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<210> 4312

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1             5             10             15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
             20             25             30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
             35             40             45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
             50             55             60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
65             70             75             80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
             85             90             95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
             100            105            110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
             115            120            125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
130            135            140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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agggtgctgcc tgacagggtc ttctctccct gtctctggtc attgatccat ctctttgtcc
120
attcagatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtctctggcag aatctacagt tcacccaac tctatgcctt accctccca acccaacagc
240
atttcagatt tgcaaaatat acagacccaa gtcctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgctcagg gcttctctcc aatgccagcc ctgccactcc ttcctcaccc
360
tccttgagc ctctctgct gcttgcttat cccaacggcc ctgctcccc cccttctgctc
420
ccttcaccag cttctctgga caccatgccc tgaggaaggg acctttgggt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtct gctgccttgt cactctttat ttggaagcca
540
ctcaaaccat tcccaagaag agggacctca gctggcaate tggaaacctg gcccaaggtc
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcacccctca tgetgtaggg tcctgcagcc ccacctcttc
720
tctatgggc cctggtatcc tggctcctct ctcagctctg ccaactgatct ctgtgcctta
780

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gtttacttct ctgcacggg gactcacccc aagaccattt ccagcagctt cccaggtgat
 840
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 900
 caccaggctg ctcagaatga ggtgactgcg ggcaac
 936

<210> 4314
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 4314
 Met Ser Ser Leu Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser
 1 5 10 15
 Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
 20 25 30
 Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
 35 40 45
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
 50 55 60
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
 65 70 75 80
 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
 85 90 95
 Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
 100 105 110

<210> 4315
 <211> 573
 <212> DNA
 <213> Homo sapiens

<400> 4315
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 cagagcgtat accatgtgaa gacacaggga agagatggcc acctaccacc acgcatgggt
 120
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcactctacc atccaagcca
 180
 ccgtaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc
 240
 aagccatgggt cactacccta ccaagtcatg gtcgcctacc atccaaggag caggcctgga
 300
 acagatcctt cccacagacc ctacgtagga gccaacctcg ctgacacctt gatctcagac
 360
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 420
 tctcttgta cagttgcatt agccagttaa cctaccgggg ccttctgtga gtgcctgggc
 480
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 573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaacataact ccagatatatt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga agaaaaagaa ttctcttgcc atagagctgt gctctcagcc
 180
 tgtgacgact acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatatt agctgaagct atggaatggt ttttcagta tgtttatatt
 300
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 360
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 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggtat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcaccccaa ctactttgtt
 720
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 744

<210> 4318

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4318

Pro Val Arg Asp Leu Gly Ser Ile Ser Gly Ser Ser His Ala Glu Asn
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 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4319

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 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaaac
 180
 agctgttccc cccatcatat caagagaagt gtagtggagc ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa
 300
 atcttaaaag ccaaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 4320
 Xaa Met Glu Lys Ser Ile Asp Ala Val Ile Ala Thr Ala Ser Ala Pro
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 Pro Ser Ser Ser Pro Gly Arg Ser His Ser Lys Asp Arg Thr Leu Gly
 20 25 30
 Lys Pro Asp Ser Leu Leu Val Pro Ala Val Ala Ser Asp Ser Cys Asn
 35 40 45
 Asn Ser Ile Ser Leu Leu Ser Glu Lys Leu Thr Ser Ser Cys Ser Pro
 50 55 60
 His His Ile Lys Arg Ser Val Val Glu Ala Met Gln Arg Gln Ala Arg
 65 70 75 80
 Lys Met Cys Asn Tyr Asp Lys Ile Leu Ala Thr Lys Lys Asn Leu Asp
 85 90 95
 His Val Asn Lys Ile Leu Lys Ala Lys Lys Leu Gln Arg Gln Ala Arg
 100 105 110
 Thr Gly Asn Asn Phe Val Lys Arg Arg Pro Gly Arg Pro Arg Ser Glu
 115 120 125
 Arg

<210> 4321
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 4321
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 gaccaggctc cttgggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
 cgtccccgtg gaaggcagcc ctgggcggaa cccaggcggt taacggctca ctaggcagcc
 180
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt
 240
 gccgcctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 ctgaagagat cgacattcag ccagtttagc ccgatctcca gtgctgaaga gtttgatgac
 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaagtc
 360
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 420
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 480
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 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaaggat cccgtcctct cccgcggggg ccacaccagc aatccccaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggta
 840

ttgccagaag tggatcttga ctctggaaag aaaccttcog agcagacagc gtccgtcatg
 900
 gcctctgtga catcccttct gtctgtctcca gcatacagcg ccgtcccttct ctctcccccc
 960
 agggcgccctc tccagtctgc ggtcgtgacc aatgcagttt cccctgcaga gtcaccccc
 1020
 aaacagggtca caatcaagcc tgtggctact gctttctctc cagtgtctgc tgtgaagacg
 1080
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 1380
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 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa Tyr Ser Lys Asp Gly Ala Lys Ser Leu Lys Gly Asp Val Pro Ala
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 20 25 30
 Ser Ser Ala Glu Glu Phe Asp Asp Glu Lys Ile Glu Val Asp Asp
 35 40 45
 Pro Pro Asp Lys Glu Asp Met Arg Ser Ser Phe Arg Ser Asn Val Leu
 50 55 60
 Thr Gly Ser Ala Pro Gln Gln Asp Tyr Asp Lys Leu Lys Ala Leu Gly
 65 70 75 80
 Gly Glu Asn Ser Ser Lys Thr Gly Leu Ser Thr Ser Gly Asn Val Glu
 85 90 95
 Lys Asn Lys Ala Val Lys Arg Glu Thr Glu Ala Ser Ser Ile Asn Leu
 100 105 110
 Ser Val Tyr Glu Pro Phe Lys Val Arg Lys Ala Glu Asp Lys Leu Lys
 115 120 125
 Glu Ser Ser Asp Lys Val Leu Glu Asn Arg Val Leu Asp Gly Lys Leu
 130 135 140
 Ser Ser Glu Lys Asn Asp Thr Ser Leu Pro Ser Val Ala Pro Ser Lys
 145 150 155 160
 Thr Lys Ser Ser Ser Lys Leu Ser Ser Cys Ile Ala Ala Ile Ala Ala
 165 170 175
 Leu Ser Ala Lys Lys Ala Ala Ser Asp Ser Cys Lys Glu Pro Val Ala

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      180      185      190
Asn Ser Arg Glu Ser Ser Pro Leu Pro Lys Glu Val Asn Asp Ser Pro
      195      200      205
Arg Ala Ala Asp Lys Ser Pro Glu Ser Gln Asn Leu Ile Asp Gly Thr
      210      215      220
Lys Lys Pro Ser Leu Lys Gln Pro Asp Ser Pro Arg Ser Ile Ser Ser
      225      230      235
Glu Asn Ser Ser Lys Gly Ser Pro Ser Ser Pro Ala Gly Ser Thr Pro
      245      250      255
Ala Ile Pro Lys Val Arg Ile Lys Thr Ile Lys Thr Ser Ser Gly Glu
      260      265      270
Ile Lys Arg Thr Val Thr Arg Val Leu Pro Glu Val Asp Leu Asp Ser
      275      280      285
Gly Lys Lys Pro Ser Glu Gln Thr Ala Ser Val Met Ala Ser Val Thr
      290      295      300
Ser Leu Leu Ser Ser Pro Ala Ser Ala Ala Val Leu Ser Ser Pro Pro
      305      310      315
Arg Ala Pro Leu Gln Ser Ala Val Val Thr Asn Ala Val Ser Pro Ala
      325      330      335
Glu Leu Thr Pro Lys Gln Val Thr Ile Lys Pro Val Ala Thr Ala Phe
      340      345      350
Leu Pro Val Ser Ala Val Lys Thr Ala Gly Ser Gln Val Ile Asn Leu
      355      360      365
Lys Leu Ala Asn Asn Thr Thr Val Lys Ala Thr Val Ile Ser Ala Ala
      370      375      380
Ser Val Gln Ser Ala Ser Ser Ala Ile Ile Lys Ala Ala Asn Ala Ile
      385      390      395
Gln Gln Gln Thr Val Val Val Pro Ala Ser Ser Leu Ala Asn Ala Lys
      405      410      415
Leu Val Pro Lys Thr Val His Leu Ala Asn Leu Asn Leu Leu Pro Gln
      420      425      430
Gly Ala Gln Ala Thr Ser Glu Leu Arg Gln Val Leu Thr Lys Pro Gln
      435      440      445
Gln Gln Ile Lys Gln Ala Ile Ile Asn Ala Ala Ser Gln Pro Pro
      450      455      460
Lys Lys Val Ser Arg Val Gln Val Val Ser Ser Leu Gln Ser Ser Val
      465      470      475
Val Glu Ala Phe Asn Lys Val Leu Ser Ser Val Asn Pro Val Pro Val
      485      490      495
Tyr Ile Pro Asn Leu Ser Pro Pro Ala Asn Ala Gly Ile Thr Leu Pro
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Thr Arg

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<210> 4325

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 4325

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<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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 Ala Lys Arg Leu Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly
 35 40 45
 Ala Ala Cys Gly Gln Ser Leu Glu Arg Ser Lys Thr Leu Ala Glu
 50 55 60
 Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala
 65 70 75 80
 Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala
 85 90 95
 Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser
 100 105 110
 Phe Leu Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro
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 Thr Gln Gly Glu Glu Gln Pro Pro Gln Pro Pro Leu Asp Pro Gln Asn
 130 135 140
 Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu
 145 150 155 160
 Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr
 165 170 175
 Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser
 180 185 190
 Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met
 195 200 205
 Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly
 210 215 220
 Phe Ser Asp Glu Arg His Gly Asp Val Val Val Arg Pro Met Arg
 225 230 235 240
 Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val
 245 250 255
 Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala
 260 265 270
 Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln
 275 280 285
 Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala
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<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

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Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
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His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
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His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
	65			70					75					80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
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<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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 35 40 45
 Thr Ala Gly Lys Lys Leu Pro Glu Val Pro Pro Ser Glu Glu Glu Glu

50 55 60
 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
 65 70 75 80
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
 85 90 95
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
 340 345 350
 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
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 Asp Arg Pro
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 <210> 4331
 <211> 1355
 <212> DNA
 <213> Homo sapiens

 <400> 4331
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 180

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 300
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<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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 Arg Pro Pro Ser Pro Ile Lys Phe Asp Leu Asn Glu Pro Leu His Leu
 35 40 45
 Ser Phe Leu Gln Asn Ala Ala Lys Leu Tyr Ala Thr Val Tyr Cys Ile

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Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
65              70              75              80
Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85              90              95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100              105              110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115              120              125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130              135              140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145              150              155              160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165              170              175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
180              185              190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195              200              205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
210              215              220
Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225              230              235              240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245              250              255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
260              265              270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275              280              285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
290              295              300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
305              310              315              320
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Arg Tyr Tyr Phe Ser His Asp Thr Asp
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<210> 4333
<211> 1278
<212> DNA
<213> Homo sapiens

<400> 4333
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300

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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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 35 40 45
 Val Ser Arg Met Phe Ser Val Ala His Pro Ala Ala Lys Val Pro Gln
 50 55 60
 Pro Glu Arg Leu Asp Leu Val Tyr Thr Ala Leu Lys Arg Gly Leu Thr
 65 70 75 80
 Ala Tyr Leu Glu Val His Gln Gln Glu Gln Glu Lys Leu Gln Gly Gln
 85 90 95
 Ile Arg Glu Ser Lys Arg Asn Ser Arg Leu Gly Phe Leu Tyr Asp Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115		120		125										
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130		135		140										
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
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Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
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<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

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 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Leu Ile Leu Tyr Gly
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 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu
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 Leu Arg Gln Asp Ile Thr Phe Phe Asp Ala Asn Lys Thr Gly Gln Leu
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 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala
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325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

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<213> Homo sapiens

<400> 4338

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Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
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Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
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<210> 4339

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<212> DNA

<213> Homo sapiens

<400> 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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			20					25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
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Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
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Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
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Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
			85						90				95		
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
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Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
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Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
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Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
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Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
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Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
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Ile	Pro	Val	Cys	Leu	Leu	Gly	Asn	Arg	Thr	Leu	Ser	Arg	Arg	Ser	Phe
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Ala	Arg	Tyr	Ala	Leu	Leu	Arg	Val	Glu	His	Gly	Pro	Pro	His	Thr	Lys
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Asn	Trp	Arg	Pro	Gln	Val	Leu	Val	Met	Leu	Asn	Leu	Asp	Ala	Glu	Gln

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690          695          700
Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala
705          710          715
Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu
725          730          735
Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu
740          745          750
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
755          760          765
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
770          775          780
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
785          790          795
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
800          805          810
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp
815          820          825
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val
830          835          840
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu
845          850          855
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr
860          865          870
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln
875          880          885
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu
890          900          905
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met
910          915          920
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn
925          930          935
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser
940          945          950
His Thr Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
955          960          965
Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
970          975          980
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
985          990          995
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
1000          1005          1010
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln
1015          1020          1025
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp
1030          1035          1040
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg
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Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser
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1075          1080          1085

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<210> 4341
<211> 693
<212> DNA
<213> Homo sapiens

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<210> 4342
<211> 103
<212> PRT
<213> Homo sapiens

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<400> 4342
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Arg Gly Gln Ser Ser Arg Gly Trp Asn Ala Ser Leu Gly Leu Gly Glu
20 25 30
Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
35 40 45
Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
50 55 60
Tyr Gly Ser Leu Arg Ser Phe Phe His Pro Leu Phe Leu Glu Lys
65 70 75 80
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85 90 95
Asn Ile Val Ala Phe Ser Ile
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<210> 4343
<211> 499
<212> DNA
<213> Homo sapiens

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<400> 4343

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 240
 acccgactcc ctggaggcgg ccaggaccga cctgtctccc acaaaatgga gttcccgtg
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 360
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 480
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<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

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 20 25 30
 Thr Leu Gly Ala Trp Thr Glu Ser Ser Gly Gly Arg Ala Ala Gly Pro
 35 40 45
 Gly Gly Glu Arg Arg Thr Asp Phe Arg Gly Gly Pro Gly His Ala Ala
 50 55 60
 Glu Thr Thr Arg Leu Pro Gly Gly Gln Asp Arg Pro Cys Pro Asp
 65 70 75 80
 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser
 85 90 95
 Ser Ser Val Ile Arg Leu Ser Asp Cys Ser Pro Phe Ile Ser Phe Ala
 100 105 110
 Val Val Gln Ile Leu Ile
 115

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
 cgtctgcatg agcagaagct ggtgcagcat gtgggtgtctc agaactgtga cggggtccac
 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acgggaacat gtacattgaa
 240
 ggagtagctg cggtgtgttcg atgtgacgga gcgcaactgcc ctccacagac accagacagg
 300
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<210> 4346

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4346

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			20					25					30		
Thr	Leu	Thr	His	Met	Ser	Ile	Thr	Arg	Leu	His	Glu	Gln	Lys	Leu	Val
		35					40				45				
Gln	His	Val	Val	Ser	Gln	Asn	Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly
		50				55				60					
Leu	Xaa	Arg	Thr	Ala	Ile	Ser	Glu	Leu	His	Gly	Asn	Met	Tyr	Ile	Glu
65					70				75					80	
Gly	Val	Arg	Ala	Gly	Val	Arg	Cys	Asp	Gly	Ala	His	Cys	Pro	Pro	Gln
		85						90					95		
Thr	Pro	Asp	Arg	Pro	Asp	Leu	Pro	Gln	Val	Trp	Asp	Pro	Ala	Ala	Gly
		100					105						110		
His	His	Cys	Ala												
		115													

<210> 4347

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4347

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 120
 ccccggggct gcgcgcagc ggggtccagct gcacaaagcc gtcgcgtccg tcccgcggag
 180
 gccaggcagt gcagaggcag gagccgccgt cgggtagcga gatcttcaat gccgagccca
 240
 agcgcgcgcc cagggcgtgg agggcgggccg ggcccaggcg gcagcgtgg gtgccccggt
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 353

<210> 4348

<211> 72

<212> PRT

<213> Homo sapiens

<400> 4348

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 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
 65 70

<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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 480
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 1920
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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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 20 25 30
 Phe Pro Pro Leu Ala His Ala Pro Leu Thr Gly Thr Arg Pro Ser Cys
 35 40 45
 Gly Pro Arg Leu Trp His Gly Thr Cys Pro Ser Ala Gln His Gly Pro
 50 55 60
 Gly Ala Thr Leu Leu Ala Glu Gly Gln Gly Pro Leu Cys Arg Gln Trp
 65 70 75 80
 Gly Gly Gly Pro Arg Phe Pro Asp Arg Gly Arg Gln Gly Thr Gly Glu
 85 90 95
 Pro Ala Ser Pro Ser Gly Gln His Gly Pro Gly Gln Thr Glu Gln Gly
 100 105 110
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<210> 4351
 <211> 4703
 <212> DNA
 <213> Homo sapiens

<400> 4351
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 240
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 420
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 aataattcat ttctgaagtt gctttccttc acttgtaaag gtctgatctc ctcccactat
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<210> 4352

<211> 86

<212> PRT

<213> Homo sapiens

<400> 4352

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Arg	Ser	Phe	Ala	Leu	Val	Ala	Gln	Ala	Gly	Val	Gln	Xaa	Leu
			20				25					30	
Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Glu	Leu	Phe	Ser	Cys	Leu
			35				40				45		
Gln	Ser	Ser	Trp	Gly	Tyr	Arg	His	Ser	Pro	Pro	Arg	Leu	Ala
			50				55				60		
Ser	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly
							70			75			80
Gln	Thr	Pro	Asn	Leu	Lys								
							85						

<210> 4353

<211> 2471

<212> DNA

<213> Homo sapiens

<400> 4353

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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4354

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Pro Pro Ala Glu Leu Leu Leu Ala Gln Thr Glu Asp Tyr Val Glu Tyr
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Ser Lys Tyr Glu Glu Asp Val Lys Ile His Asn His Thr His Ile Trp
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          430          435          440
Phe Phe Lys Tyr Ser Tyr Cys Thr Gly Glu Ala Gly Lys Glu Ile Val
          445          450          455
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Lys Lys Pro Gln Thr Leu Met Glu Leu His Gln Glu Lys Leu Lys Glu
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Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser
          490          495          500
Ser Asp Ser Asp Asp Glu Glu Lys Lys His Glu Lys Leu Lys Lys Ala
          505          510          515
Leu Asn Ala Glu Glu Ala Arg Leu Leu His Val Lys Glu Thr Met Gln
          520          525          530
Ile Asp Glu Arg Lys Arg Pro Tyr Asn Ser Met Tyr Glu Thr Arg Glu
          535          540          545
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<211> 1741

<212> DNA

<213> Homo sapiens

<400> 4355

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<212> PRT

<213> Homo sapiens

<400> 4356

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Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly
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<211> 421

<212> DNA

<213> Homo sapiens

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35          40          45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
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Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
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<210> 4359

<211> 3661

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<213> Homo sapiens

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<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
		50				55					60				
Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75					80
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105						110	
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
		115					120					125			
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
	130				135						140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
145				150					155						160
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
				165					170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys


```

      180      185      190
Arg Val Ala Gly Ser Gly Lys Pro Pro Ile Phe Glu Val Asp Pro Arg
      195      200      205
Gly Cys Pro Phe Thr Ile Lys Leu Ser Ala Arg Lys Asp His Glu Gly
      210      215      220
Ser Cys Asp Tyr Arg Pro Val Arg Cys Pro Asn Asn Pro Ser Cys Pro
      225      230      235      240
Pro Leu Leu Arg Met Asn Leu Glu Ala His Leu Lys Glu Cys Glu His
      245      250      255
Ile Lys Cys Pro His Ser Lys Tyr Gly Cys Thr Phe Ile Gly Asn Gln
      260      265      270
Asp Thr Tyr Glu Thr His Leu Glu Thr Cys Arg Phe Glu Gly Leu Lys
      275      280      285
Glu Phe Leu Gln Gln Thr Asp Asp Arg Phe His Glu Met His Val Ala
      290      295      300
Leu Ala Gln Lys Asp Gln Glu Ile Ala Phe Leu Arg Ser Met Leu Gly
      305      310      315      320
Lys Leu Ser Glu Lys Ile Asp Gln Leu Glu Lys Ser Leu Glu Leu Lys
      325      330      335
Phe Asp Val Leu Asp Glu Asn Gln Ser Lys Leu Ser Glu Asp Leu Met
      340      345      350
Glu Phe Arg Arg Asp Ala Ser Met Leu Asn Asp Glu Leu Ser His Ile
      355      360      365
Asn Ala Arg Leu Asn Met Gly Ile Leu Gly Ser Tyr Asp Pro Gln Gln
      370      375      380
Ile Phe Lys Cys Lys Gly Thr Phe Val Gly His Gln Gly Pro Val Trp
      385      390      395      400
Cys Leu Cys Val Tyr Ser Met Gly Asp Leu Leu Phe Ser Gly Ser Ser
      405      410      415
Asp Lys Thr Ile Lys Val Trp Asp Thr Cys Thr Thr Tyr Lys Cys Gln
      420      425      430
Lys Thr Leu Glu Gly His Asp Gly Ile Val Leu Ala Leu Cys Ile Gln
      435      440      445
Gly Cys Lys Leu Tyr Ser Gly Ser Ala Asp Cys Thr Ile Ile Val Trp
      450      455      460
Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp Asn
      465      470      475      480
Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly Ser
      485      490      495
Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys Leu
      500      505      510
Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val Ala
      515      520      525
Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile Trp
      530      535      540
Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly Gly
      545      550      555      560
Ser Val Tyr Ser Ile Ala Val Thr Asn His His Ile Val Cys Gly Thr
      565      570      575
Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln Val
      580      585      590
Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val Ile
      595      600      605
Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg Ser

```

```

        610                615                620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu
625                630                635                640
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu
        645                650                655
Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys
        660                665                670

```

<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

```

<400> 4361
nggatccaga acccattgct atcaggctgt acagccttca atcacacgg gaacctgctg
60
gtcacagggg cagctgatgg cgtcatccgg ctgtttgaca tgcagcagca tgagtgcgcg
120
atgagctgga gggcccaacta cggggagggtc tactctgtgg agttcagcta tgatgagaac
180
accgtgtaca gcctcggcga ggacgggaag gtaggcggtc ccaggattca gataagagag
240
caccgggatg acatgtgggc cggtcgcagg ttgtggccat acctgttact agctctgcaa
300
cctggggcct ctttttcgag ctttgttatc tgtagaatag ggataaacta gtaattcgct
360
ttacaatcct tgcgaggttt tagtgaattc agtgggagtt ggctatcctt atgaaggaa
420
gtacaaaaaa ttactcatct taccatagat gtatctgtgg ggtctggatt tagggctgag
480
tttgctttgc tgggcttggg agtgagtggt cccaggacca ctcattggatg tgtagtttgc
540
tgagtggctg gggacagctt cttacatgtg taca
574

```

<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

```

<400> 4362
Xaa Ile Gln Asn Pro Leu Leu Ser Gly Cys Thr Ala Phe Asn His Asn
1      5      10      15
Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe
20     25     30
Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
35     40     45
Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
50     55     60
Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
65     70     75     80
His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
85     90     95
Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

```

100
Ile Gly Ile Asn
115

105

110

<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

<400> 4363
 tttttttttt tttttttttt tttttttttt tttttttttt tttttgagat ttcccaggac
 60
 tggctttaat ttgaaaaatc tgattggggg ctcttcccgat atcagagaag gaacagccca
 120
 agctatgacc ccaggggccag ggaattcagt cccaccaga ccctgtcatt ccatcactag
 180
 ggggtaattc caggctcccc ctgccagccc tgagacagga ggacggatgt gaagtgtccc
 240
 aggactagat tctgtctctc caaagtggcc caagccctgt tctctgtact agggaaagcca
 300
 gctgtgtctt ttccaggaca gttggtccag ccagcaggct cagttcagat accagacaac
 360
 cattccagca caggggctca cgcacctggc cccggcggtc gctccagtgc ctgtgtgccc
 420
 accagcacat ccattagggt gtccaattcg gcctctgcca gctccggagc ttctctcttg
 480
 cccggcccat cctcaggggc tgggttgagg ccttcagagg ctgggtgccc aagttcattg
 540
 tcatacatag aggtgtcaat atcctcaaac aggcctcga gcccatcgtc cagtagacag
 600
 ccagtggctg gggccagcac gtccaaggca cccaggctgg cgcgtgctcc ccgatgcta
 660
 cggcctgggt gcccctcgtc tgccaagggt tggggagcct gactcagccc ctcaatgtgg
 720
 ctgaggtctc ccaggaggct gggccatggag gctgaaaggg cagcgtccga gcttgccagt
 780
 aagttgtcag ccacactggg ggtgtcaggt gggctaggca caggtggcag ggcagccgag
 840
 ggtgccatag acgcnntgg atgcgcgcga gagtgttcac gaccagcacc aggtgcgcga
 900
 ggtccgctgc actctgctgc aggtgtgtgt nggagcttga gcactgagag gtcaaaggag
 960
 gagctagagg ccacggccgg ggggtgctgt gccaccgctg cgtggccagg atctagccac
 1020
 caggagtcca ctgccagagg ttcttctctc tctctctctc ccggtttccg cttcagaccc
 1080
 ttgctcagca tcttgctcac tagcgcccaa tcagaacgaa gaggtagcca cccacaacca
 1140
 atcaggaaac ggcggcggca gcacgccttg ttggctgtcc tccggaaacc cgcgcctggg
 1200
 tcgcgagacg cagttctagc ga
 1222

<210> 4364

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4364

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Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser
 1             5             10             15
Lys Val Ala Gln Ala Leu Phe Ser Val Leu Gly Lys Pro Ala Val Ser
      20             25             30
Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
      35             40             45
Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
      50             55             60
Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
65             70             75

```

<210> 4365

<211> 469

<212> DNA

<213> Homo sapiens

<400> 4365

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gacgtgctcg atggcaaggt cgcaccgggc aagaacgtgc cggctctacga caccatctgc
60
gagttcaccg gcatgtcggt cgccgacttc ctgcgtgaca agggcagcca gggttgagatc
120
gtcacccgacg acatcaagcc ggggtgtggcg attggcgcta cgtcgttccc gacctactac
180
cgcagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat
240
cgcgaggggcg acaagctggt ggcggtgctg gagaacgaat acaccggcgcg caaggaagag
300
cgggttggtcg accaggtggt ggtggagaac ggtgtgcgtc cggatgagga aatctactac
360
gggctcaagg aaggttcgcg caacaaggcg cagatcgatg tcgaagccct gttcgcgatc
420
aagccgcagc ctctcgtgaa tactcttaat gaagaggcag cgggtgacg
469

```

<210> 4366

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4366

```

Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr
 1             5             10             15
Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala
      20             25             30
Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
      35             40             45
Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
      50             55             60
Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

```

```

65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
      85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
      100        105        110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
      115        120        125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
      130        135        140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

```

<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

```

nncctagggca gggggatggc cctgcgtgac tgcaccagaa ggaaggagct gggggccggct
60
ggccttttgc aggtggaatt tccagaggcc cggatcttgc aggagaccct gaacatcctc
120
atctacgaga ctccccgggg ccagagacca gccctcctgg aggccacagg gggagcagct
180
ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg
240
atccatgtcc ggcgccatat caccacgac gagcgtcctc atggccaaca aattgtcttc
300
aaggactgac ctctgacctt ccccttgcct tctcttggcc ttgggaccca gtccctctct
360
ctttccctcc ctttcccgaga cttttgcccc ggcctctgctg gccaaagtct gggctcctct
420
ctgtcccttc attgcatggc acagctcaet ttggcccttc tccaccgcgc ccaaccccat
480
tgctaacaac atggtacatt ccggcccccac cactcagagc cttccgaagc caacacttgt
540
ccccaccctg gccctgcgtc cttccctctc cagctggtta agagggattt agaattccct
600
ttctcttttt ttagtgcata gtccatgcca aagtgtgcgg cccttcctga catcaccaca
660
gtctgagcag cctcccgctt cctgcagggt agtccgcccc ctctcccca ccatectccc
720
taacctctta actttgtact agactggcct gggcctgccc agctcagcgt tatcagctgt
780
tttcatatta ttattattt taattttcta ttaaattatt gaaataaagt taagttgaga
840
aactaaaaaa aa
852

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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368
 Xaa Leu Gly Arg Gly Met Ala Leu Arg Asp Cys Thr Arg Arg Lys Glu
 1 5 10 15
 Leu Gly Pro Ala Gly Leu Leu Gln Val Glu Phe Pro Glu Ala Arg Ile
 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
 100

<210> 4369
 <211> 1264
 <212> DNA
 <213> Homo sapiens

<400> 4369
 gctcagctgg ccaacctga aatccccctg ggcagtcgag agcagttcct cctcaecctg
 60
 tcctccatca gcgagctctc tgcacgactt cacctctggg cattcaaaat ggattatgaa
 120
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg
 180
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta
 240
 aatggaacta atgccaaagc gtttgagtta agctacctcg agaagggttc agaagtcaaa
 300
 gacacagtc acaagcagtc gcttctccac catgtgtgca ccatgggtgg agaaaacttc
 360
 ccagacagct ccgatctgta ctggagatc ggggccatca ccaggctcag caagggtgac
 420
 tttctgcaac ttcaggataa tttatgtcag atggagagaa gatgcaaaag ttcattgggat
 480
 cacctcaagg caattgcaaa acatgaaatg aaaccagttt taaaacaacg gatgtcagag
 540
 ttcctgaaa actgtgcaga gcgaattata attttaaaga ttgtccatag aaggataatc
 600
 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg
 660
 aacataaaca aattctgcag gattattagt gaatttgcac tagagtatcg cacaaccagg
 720
 gaaagggttt tgcagcagaa acagaaaacgg gcccaaccaca gagagagaaa taagaccaga
 780
 gggaagatga tcaccgatte tggcaagttc tccggcagtt ctccggcgcc cccaagccag
 840
 ccgagggttc tgagctatgc ggaggacgag gctgagcagc agaacatgaa ggctgtgtg
 900
 aaaacctcgt cccctccag ggtccctg caccatcett ctccatcgtg tcagctgtgt
 960

tctcttggat tccgtgacac cccggtttatt agttcaaaag tctgacacct tttctgggca
 1020
 aggaacagcc cctttaagga gcaaatcact tctgtcacag ttattatggt aatatgaggg
 1080
 aatcttgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccce
 1140
 aaactgttac acaaaagaaa gcacagattg tttacctggt gtggatttta gatgtaacaa
 1200
 atgtttatataa aaatacatata atgtacacca tgtttcaaat actaaataaa tagagttaa
 1260
 tgcc
 1264

<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

Ala Gln Leu Ala Asn Pro Glu Ile Pro Leu Gly Ser Ala Glu Gln Phe
 1 5 10 15
 Leu Leu Thr Leu Ser Ser Ile Ser Glu Leu Ser Ala Arg Leu His Leu
 20 25 30
 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275				280					285				
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser
	290					295					300			
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu
	305				310					315				320
Phe	Ser													

<210> 4371

<211> 907

<212> DNA

<213> Homo sapiens

<400> 4371

actttcaaaa tggcggagtg tggagcgagc ggcagcggga gcagcggga cagctctggac
60
aagagcatca cgctgcccc cgacgagatc ttcgcaacc tggagaacgc caagcgttc
120
gccatcgaca taggcgggtc gttaccaag ctggcctact attcaacggt acagcacaaa
180
gtcgccaagg tgcggtcttt cgaccactcc ggaagagaca cagaacgtga acatgagccg
240
ccctatgaga tttagttca agaagagatc actgctcgac tgcacttcat taagtttgag
300
aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtaac cacagagacc
360
aaggtcatcc aggcgaccgg ggcgggggcc tacaagttca aggacctcat cgaagagaa
420
ctgcggctga aagtcgaca ggaggacgtg atgacgtgcc tgattaagggt gtgcaactc
480
gtgctcaaga acatccccc tgaggccttc gtgtaccaga aggattccga ccctgagttc
540
cgggtccaga ccaaccacc ccacattttc ccctatcttc ttgtcaatat cggctctgga
600
gtctccatcg tgaaggtgga gacggaggac aggttcgagt gggtcggcgg cagctccatt
660
ggaggcggca ccttctgggg gcttggcgct ctgctcacca aaacgaagaa gtttgacgag
720
ctcctgcacc tggcctcgag gggccagcac agcaatgtgg acatgctggt gcgggacgtc
780
tacggcggcg ccaccagac tctcgggctg agcgggaacc tcatcgccag cagcttcggg
840
aagtcggcca ccgccgacca agagtctctc aaagaagaca tggcgaagag cctgctgcac
900
atgatca
907

<210> 4372

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4372

Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly


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      1           5           10           15
Asp Ser Leu Asp Lys Ser Ile Thr Leu Pro Pro Asp Glu Ile Phe Arg
      20           25           30
Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
      275          280          285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
      290          295          300

<210> 4373
<211> 1017
<212> DNA
<213> Homo sapiens

<400> 4373
acgctcatc acggctgcgc cgggggaatc cgtgcgggcg cttccgtcc cggteccatc
60
ctcgccgcgc tccagcacct ctgaagtttt gcagcgccca gaaaggaggc gaggaaggag
120
ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catttatctc aaggagaaaa
180
gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

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tgattgtccc agggcccaca acggcagtggt cctacatgtc ggtgaaatgt gtggatgccc
 360
 gtaagaacca tcacaagaca aaatgggttcg tgccttgggg acccaatcat tgtgacaaga
 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
 ttcacattcc cctcccccc atggagatga gtccctgggtt ccaattcatg ctgtttatcc
 540
 tgacagtggga cattgccttc aagctaaaca accaaatcag agaaaaatgca gaagtctcca
 600
 tggacgtttc cctggcttac cgtgatgacg cgttttctga gtggactgaa atggcccatg
 660
 aaagagtacc acgaaaacte aaatgcacct tcacatctcc caagactcca gagcatgagg
 720
 gccgttacta tgaatgtgat gtccttctct tcattgaaat tgggtctgtg gcccataagt
 780
 ttacctttt aaacatccgg ctgcctgtga atgagaagaa gaaaatcaat gtgggaattg
 840
 gggagataaa ggatatccgg ttggtgggga tccacaaaaa tggaggcttc accaaggtgt
 900
 gggtttgccat gaagaccttc cttacgcccc gcattctcat cattatgggt tggtattgga
 960
 ggaggatcac catgatgtcc cgacccccag tgcttctgga aaaagtcac tttgcc
 1017

<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

Met Ala Gly Ala Ile Ile Glu Asn Met Ser Thr Lys Lys Leu Cys Ile
 1 5 10 15
 Val Gly Gly Ile Leu Leu Val Phe Gln Ile Ile Ala Phe Leu Val Gly
 20 25 30
 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile
 85 90 95
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe
 100 105 110
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala
 130 135 140
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu
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 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr
 165 170 175
 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His

	180		185		190
Lys	Phe Tyr Leu Leu Asn Ile Arg	Leu Pro Val Asn Glu Lys Lys Lys			
	195	200	205		
Ile	Asn Val Gly Ile Gly Glu Ile Lys Asp Ile Arg Leu Val Gly Ile				
	210	215	220		
His	Gln Asn Gly Gly Phe Thr Lys Val Trp Phe Ala Met Lys Thr Phe				
225	230	235	240		
Leu	Thr Pro Ser Ile Phe Ile Ile Met Val Trp Tyr Trp Arg Arg Ile				
	245	250	255		
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<210> 4375

<211> 1966

<212> DNA

<213> Homo sapiens

<400> 4375

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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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 Val Pro His Ser Ser Ser Thr Phe Arg Leu Thr Ala Ser Phe Gly Arg
 35 40 45
 Ala Gly Pro Gly Met Leu His Thr Thr Gln Leu Tyr Gln His Val Pro
 50 55 60
 Glu Thr Arg Trp Pro Ile Val Tyr Ser Pro Arg Tyr Asn Ile Thr Phe
 65 70 75 80
 Met Gly Leu Glu Lys Leu His Pro Phe Asp Ala Gly Lys Trp Gly Lys
 85 90 95
 Val Ile Asn Phe Leu Lys Glu Glu Lys Leu Leu Ser Asp Ser Met Leu
 100 105 110
 Val Glu Ala Arg Glu Ala Ser Glu Glu Asp Leu Leu Val Val His Thr
 115 120 125
 Arg Arg Tyr Leu Asn Glu Leu Lys Trp Ser Phe Ala Val Ala Thr Ile

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130
Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
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Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
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Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
175
Phe His His Cys Ser Ser Asp Arg Gly Gly Phe Cys Ala Tyr Ala
190
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
205
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
220
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
235
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
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Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
265
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
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Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
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Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
315
Val Phe Arg Met Val Arg Gly Arg Val Pro Ile Leu Met Val Thr
330
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
345
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<210> 4377
<211> 812
<212> DNA
<213> Homo sapiens

<400> 4377
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420

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<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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 Ser Met Arg Glu His Pro Ala Leu Arg Ser Leu Arg Leu Leu Thr Leu
 35 40 45
 Glu Gln Pro Gln Gly Asp Ser Met Met Thr Cys Glu Gln Ala Gln Leu
 50 55 60
 Leu Ala Asn Leu Ala Arg Leu Ile Gln Ala Lys Lys Ala Leu Asp Leu
 65 70 75 80
 Gly Thr Phe Thr Gly Tyr Ser Ala Leu Ala Leu Ala Leu Pro
 85 90 95
 Ala Asp Gly Arg Val Val Thr Cys Glu Val Asp Ala Gln Pro Pro Glu
 100 105 110
 Leu Gly Arg Pro Leu Trp Arg Gln Ala Glu Ala Glu His Lys Ile Arg
 115 120 125
 Leu Arg Leu Lys Pro Ala Leu Glu Thr Leu Asp Glu Leu Leu Ala Ala
 130 135 140
 Gly Glu Ala Gly Thr Phe Asp Val Ala Val Val Asp Ala Asp Lys Glu
 145 150 155 160
 Asn Cys Ser Ala Tyr Tyr Glu Arg Cys Leu Gln Leu Leu Arg Pro Gly
 165 170 175
 Gly Ile Leu Ala Val Leu Arg Val Leu Trp Arg Gly Lys Val Leu Gln
 180 185 190
 Pro Pro Lys Gly Asp Val Ala Ala Glu Cys Val Arg Asn Leu Asn Glu
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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 35 40 45
 Ala Gln Thr Ser Val Leu His Arg Glu Asp Leu Glu Arg Leu Gly Val
 50 55 60
 Gln Glu Ser Asp Leu Arg Leu Phe Leu Asp Gly Asp Ile Leu Arg Gln
 65 70 75 80
 Asp Arg Val Ser Lys Gly Cys Tyr Ser Phe Ile His Leu Ser Phe Gln
 85 90 95
 Gln Phe Leu Thr Ala Leu Phe Tyr Thr Leu Glu Lys Glu Glu Glu
 100 105 110
 Asp Arg Asp Gly His Thr Trp Asp Ile Gly Asp Val Gln Lys Leu Leu
 115 120 125
 Ser Gly Val Glu Arg Leu Arg Asn Pro Asp Leu Ile Gln Ala Gly Tyr

130 135 140
 Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala
 145 150 155 160
 Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg
 165 170 175
 Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln
 180 185 190
 Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Leu Val Lys
 195 200 205
 Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val
 210 215 220
 Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln
 225 230 235 240
 Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr
 245 250 255
 Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His
 260 265 270
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 275 280 285
 Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu
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 Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln
 305 310 315 320
 Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu
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 Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln
 500 505 510
 Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly
 515 520 525
 Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys
 530 535 540
 Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser
 545 550 555 560
 Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr

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<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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			20					25					30		
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35					40					45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50				55					60					
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65				70					75					80	
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
			85					90						95	
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
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Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
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Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
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Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
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Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
		165					170						175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
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Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
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Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

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Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
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Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
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<210> 4383

<211> 419

<212> DNA

<213> Homo sapiens

<400> 4383

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300
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<210> 4384

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4384

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Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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	85		90		95										
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
	100						105						110		
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
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Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
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<210> 4385

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4385

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540
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600
atcgaggagg ctctctgggag tcgggaatca tcacaatggt cttggctttg actttggaag
660
agctgggtctc caagggttc acataccacc tgttcatgct ctcccatcag ggaccacgaa
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gaaagtcttc agctgtgacg ctgaagtttg atca
754

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<210> 4386

<211> 85

<212> PRT

<213> Homo sapiens

<400> 4386

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5				10					15		
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	His	Trp	Leu	Pro	Ala	
		20					25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40				45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe

```

      50              55              60
Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
65              70              75              80
Gln Ala Ala Glu Ser
      85

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<210> 4387
 <211> 341
 <212> DNA
 <213> Homo sapiens

```

<400> 4387
ggggggggcc ttcccatctt tttccctttt atgggggggg ggttttttaa aaaaaaaggg
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gggccccccc aaaagggggg ggggggaagg gggttttccc accccaaaaa accccccccc
120
ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaaaaaa
180
aaaaccggga aaattttttt tccccccccc ccaaaaaaaa aaaaaaaacc ggggggcccc
240
cctttttttg gggggggggg tttttttttt tttttttttt tttttttttt tttttttttc
300
aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
341

```

<210> 4388
 <211> 113
 <212> PRT
 <213> Homo sapiens

```

<400> 4388
Gly Gly Gly Leu Pro Ile Phe Phe Pro Phe Met Gly Gly Gly Phe Phe
1      5      10      15
Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Gly Arg Gly Phe
20      25      30
Ser His Pro Lys Lys Pro Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
35      40      45
Gly Gly Phe Phe Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
50      55      60
Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
65      70      75      80
Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe Phe
85      90      95
Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
100     105     110
Val

```

<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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gctgccgagg gcgcgcgggt gtacgtggtg gacgacgcag ctgtcctggg cgcagaggac
120
ccagcgggtg acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcatcctgg actcgtctaa ctacatcaaa
240
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgtc ctgcctggtc
300
tactgcgtac ggcccggcgg cccgatcgcg ggacctcagg tggcgggcgc gaacgagaac
360
cctggccgga acgtcagtggt gaggttggcg ccacgcgctg agggaggcgg gagagcccag
420
gcggcgggca gcagcgtcct cagggaaactg catactgcgg actctgtagt aaatggaaat
480
gcccaggcgg acgtacccaa ggaactggag cgagaagaat cgggggctgc ggagtctcca
540
gctctctgta ctccggattc agagaaatct gcaaagcatg ggtccgggtc cttttactct
600
cccgaactcc tggaggccct aacgctgcgc tttagggctc ccgattctcg gaatcgctgg
660
gaccggcctt tattcaacttt ggtgggcata gaggagccgt tgcccccggc ggggataccg
720
tctgcccctg ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagcccctc
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gcctccggca gctttctgca ccagttggac caggtcacga gtcaagtact ggccggattg
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cacttgccgt ttaccgggcc cttgacctg gcagaactga gtgcctctcg tcgccagttt
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1140
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1440
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1500
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1560
atccttgaga aactttgttt ttgtggaagt aagaaagtta tctactagat ttttccctct
1620

aataaaatct tttaaaatag tctactggaa tctctttcac ttaagtgtcc ctgtgtaact
 1680
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 1740
 tagttctgag agagtagatg ttttgagcta ctctacagta attatattat gacaatttcc
 1800
 gtaaatgttt tgettcattc tgcatttcaa ggcaaatatc attgtaagct tgtctttcat
 1860
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 1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

Arg Val Ala Arg Gly Val Ala Ala Glu Gly Arg Ala Val Tyr Val Val
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 20 25 30
 Ser Ala Arg Glu Lys Ala Leu Arg Gly Ala Leu Arg Ala Ser Val Glu
 35 40 45
 Arg Arg Leu Ser Arg His Asp Val Val Ile Leu Asp Ser Leu Asn Tyr
 50 55 60
 Ile Lys Gly Phe Arg Tyr Glu Leu Tyr Cys Leu Ala Arg Ala Ala Arg
 65 70 75 80
 Thr Pro Leu Cys Leu Val Tyr Cys Val Arg Pro Gly Gly Pro Ile Ala
 85 90 95
 Gly Pro Gln Val Ala Gly Ala Asn Glu Asn Pro Gly Arg Asn Val Ser
 100 105 110
 Val Ser Trp Arg Pro Arg Ala Glu Glu Asp Gly Arg Ala Gln Ala Ala
 115 120 125
 Gly Ser Ser Val Leu Arg Glu Leu His Thr Ala Asp Ser Val Val Asn
 130 135 140
 Gly Ser Ala Gln Ala Asp Val Pro Lys Glu Leu Glu Arg Glu Glu Ser
 145 150 155 160
 Gly Ala Ala Glu Ser Pro Ala Leu Val Thr Pro Asp Ser Glu Lys Ser
 165 170 175
 Ala Lys His Gly Ser Gly Ala Phe Tyr Ser Pro Glu Leu Leu Glu Ala
 180 185 190
 Leu Thr Leu Arg Phe Glu Ala Pro Asp Ser Arg Asn Arg Trp Asp Arg
 195 200 205
 Pro Leu Phe Thr Leu Val Gly Ile Glu Glu Pro Leu Pro Pro Ala Gly
 210 215 220
 Ile Arg Ser Ala Leu Phe Glu Asn Arg Ala Pro Pro Pro His Gln Ser
 225 230 235 240
 Thr Gln Ser Gln Pro Leu Ala Ser Gly Ser Phe Leu His Gln Leu Asp
 245 250 255
 Gln Val Thr Ser Gln Val Leu Ala Gly Leu Met Glu Ala Gln Lys Ser
 260 265 270
 Ala Val Pro Gly Asp Leu Leu Thr Leu Pro Gly Thr Thr Glu His Leu
 275 280 285
 Arg Phe Thr Arg Pro Leu Thr Met Ala Glu Leu Ser Arg Leu Arg Arg


```

      290              295              300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro
305              310              315              320
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His
              325              330              335

<210> 4391
<211> 988
<212> DNA
<213> Homo sapiens

<400> 4391
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120
ggaggtggca tgcgaccccc acccaactcc ctgcgcggcc caggcctgcc tgccatgaac
180
atgggcccag gagtctcgtgg cccgtggggc agccccagtg gaaactcgat cccctactcc
240
tcctcatccc cggcgagcta caccggaccc ccaggagagg gtgggccccc tggaacaccc
300
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360
cccategggc agggcgccgg cagggcctaat tccccgctcg gccttgggcc ggagggcccc
420
atggccgcca tgagcgcgat ggagcctcac cacgtgaacy gatccctggg ctgcggcgac
480
atggacgggt tgccgaagag tcccccggc gccgtggcgg gcctgagcaa cgccccgggc
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660
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720
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780
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840
cctgccattt gtattttgtc ccagagagaa aggcctcttg gggggccccct ctccccagga
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960
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
988

<210> 4392
<211> 211
<212> PRT
<213> Homo sapiens

<400> 4392
Xaa Pro Phe Ser Trp Pro His Gly Ala Ser Pro Arg Ala Gln Gly His

```

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Pro Ser Met Gly Gly Pro Met Gln Arg Val Thr Pro Pro Arg Gly Met
      20           25           30
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro
      35           40           45
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly
      50           55           60
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser
      65           70           75           80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro
      85           90           95
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser
      100          105          110
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg
      115          120          125
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met
      130          135          140
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp
      145          150          155          160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser
      165          170          175
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Gly
      180          185          190
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr
      195          200          205
Met Ser Val
      210

<210> 4393
<211> 2171
<212> DNA
<213> Homo sapiens

<400> 4393
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120
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180
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240
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300
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360
cctgtaataa aagcatgtat tgaaaatgga gccagttgta tcgacatcag tggagaacct
420
cagtttctcg aactaatgca actgaagtat catgagaaag ctgcagacaa aggggtttat
480
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540
aataaaatga atggtacttt gactgctgtg gaaagttcc tgactatata ttcaggacct
600

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gaggggttga gcattcatga tggtagctgg aagtcagcaa tttatggttt tggagatcag
660
agtaatttga gaaaactaag aaatgtatca aatctgaaac ctgtcccgcct cattggtcca
720
aaattgaaga gaaggtggcc aatttcttat tgtcgggaac tcaaaggta ttccattcct
780
tttatgggat ctgatgtgtc tgttgtaagg aggactcaac gttacttgta tgaataatga
840
gaggaatcac cagttcagta tgcctgctat gtaactgtgg gaggcacac ctctgttatt
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960
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1020
caaaaacaga ttgatgtgtc ctcatcagc ctgacattct ttgggtcaagg atacagccaa
1080
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1140
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1680
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2040
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2160
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2171

<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394

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Met Ala Thr      Glu Gln Arg  Pro Phe His  Leu Val Val  Phe Gly Ala Ser
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 20              25              30
Asp Pro Glu Arg Ser Ser  Pro Ala Leu Gly Val Ala  Gly Arg Ser Arg
 35              40              45
Glu Lys Leu Gln Arg Val  Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
 50              55              60
Pro Thr Leu Ser Ser  Glu Val Gly Ile Ile Cys Asp Ile Ala Asn
 65              70              75              80
Pro Ala Ser  Leu Asp Glu Met Ala Lys  Gln Ala Thr Val Val Leu Asn
 85              90              95
Cys Val Gly  Pro Tyr Arg Phe Tyr  Gly Glu Pro Val Ile Lys Ala Cys
 100             105             110
Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
 115             120             125
Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
 130             135             140
Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
 145             150             155             160
Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
 165             170             175
Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
 180             185             190
Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
 195             200             205
Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
 210             215             220
Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
 225             230             235             240
Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
 245             250             255
Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
 260             265             270
Tyr Ala Ala Tyr Val Thr Val Gly Gly Ile Thr Ser Val Ile Lys Leu
 275             280             285
Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
 290             295             300
Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
 305             310             315             320
Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
 325             330             335
Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
 340             345             350
Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
 355             360             365
Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

```

370		375		380	
Leu Ser Asp Ala Ser His Leu Pro Lys Ala Gly Gly Val Phe Thr Pro					
385	390		395		400
Gly Ala Ala Phe Ser Lys Thr Lys Leu Ile Asp Arg Leu Asn Lys His					
	405		410		415
Gly Ile Glu Phe Ser Val Ile Ser Ser Ser Glu Val					
	420		425		

<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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1200

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 1893

<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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Ile	Leu	Met	Ala	Lys	Glu	Arg	Leu	Glu	Ala	Leu	Arg	Thr	Ala	Phe	Glu
		20						25					30		
Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
		35				40					45				
Ser	Thr	Glu	Ser	Ile	Arg	Leu	Glu	Val	Gly	Val	Thr	Gly	Glu	Ser	Gly
	50				55					60					
Ala	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ala	Leu	Arg	Gly	Leu	Glu	Ala	Glu
65					70				75					80	
Asp	Pro	Gly	Ala	Ala	Leu	Thr	Gly	Val	Met	Glu	Thr	Thr	Met	Gln	Pro
		85						90					95		
Ser	Pro	Tyr	Pro	His	Pro	Gln	Phe	Pro	Asp	Val	Thr	Leu	Trp	Asp	Leu
		100						105					110		
Pro	Gly	Ala	Gly	Ser	Pro	Gly	Cys	Pro	Ala	Asp	Lys	Tyr	Leu	Lys	Gln
		115				120					125				
Val	Asp	Phe	Ser	Arg	Tyr	Asp	Phe	Phe	Leu	Leu	Val	Ser	Pro	Arg	Arg
	130					135					140				
Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
145					150					155				160	
Lys	Lys	Phe	Tyr	Phe	Val	Arg	Thr	Lys	Val	Asp	Glu	Asp	Leu	Ala	Ala
				165				170					175		
Thr	Arg	Thr	Gln	Arg	Pro	Ser	Gly	Phe	Arg	Glu	Ala	Ala	Val	Leu	Gln

```

      180      185      190
Glu Ile Arg Asp His Cys Ala Glu Arg Leu Arg Glu Ala Gly Val Ala
      195      200      205
Asp Pro Arg Ile Phe Leu Val Ser Asn Leu Ser Pro Ala Arg Tyr Asp
      210      215      220
Phe Pro Thr Leu Val Ser Thr Trp Glu His Asp Leu Pro Ser His Arg
      225      230      235
Arg His Ala Gly Leu Leu Ser Leu Pro Asp Ile Ser Leu Glu Ala Leu
      245      250      255
Gln Lys Lys Lys Ala Met Leu Gln Glu Gln Val Leu Lys Thr Ala Leu
      260      265      270
Val Leu Gly Val Ile Gln Ala Leu Pro Val Pro Gly Leu Ala Ala Ala
      275      280      285
Tyr Asp Asp Ala Leu Leu Ile His Ser Leu Arg Gly Tyr His Arg Ser
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Phe Gly Leu Asp Asp Asp Ser Leu Ala Lys Leu Ala Glu Gln Val Gly
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Lys Gln Ala Gly Asp Leu Arg Ser Val Ile Arg Ser Pro Leu Ala Asn
      325      330      335
Glu Val Ser Pro Glu Thr Val Leu Arg Leu Tyr Ser Gln Ser Ser Asp
      340      345      350
Gly Ala Met Arg Val Ala Arg Ala Phe Glu Arg Gly Ile Pro Val Phe
      355      360      365
Gly Thr Leu Val Ala Gly Gly Ile Ser Phe Gly Ala Val Tyr Thr Met
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Leu Gln Gly Cys Leu Asn Glu Met Ala Glu Asp Ala Gln Arg Val Arg
      385      390      395
Ile Lys Ala Leu Glu Asp Asp Glu Pro Gln Pro Glu Val Ser Leu Glu
      405      410      415
Val Ala Ser Asp Asn Gly Val Glu Lys Gly Gly Ser Gly Glu Gly Gly
      420      425      430
Gly Glu Glu Ala Pro Leu Ser Thr Cys Arg Lys Leu Gly Leu Leu Leu
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Lys Tyr Ile Leu Asp Ser Trp Lys Lys His Asp Ser Glu Glu Lys
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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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 Ser Ser Glu Arg Ile Ile Ala Pro Met Arg Trp Gly Leu Val Pro Ser
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 Trp Phe Lys Glu Ser Asp Pro Ser Lys Leu Gln Phe Asn Thr Thr Asn
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 Cys Arg Ser Asp Thr Val Met Glu Lys Arg Ser Phe Lys Val Pro Leu
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 Gly Lys Gly Arg Arg Cys Val Val Leu Ala Asp Gly Phe Tyr Glu Trp
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 130 135 140
 Pro Gln Ile Lys Thr Glu Lys Ser Gly Ser Ile Gly Ala Ala Asp Ser
 145 150 155 160
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 165 170 175
 Ala Gly Ile Phe Asp Cys Trp Glu Pro Glu Gly Gly Asp Val Leu
 180 185 190
 Tyr Ser Tyr Thr Thr Ile Ile Thr Val Asp Ser Cys Lys Gly Leu Ser Asp
 195 200 205
 Ile His His Arg Met Pro Ala Ile Leu Asp Gly Glu Glu Ala Val Ser

210	215	220
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Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val		240
	245	250
Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu		255
	260	265
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu		270
	275	280
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro		285
	290	295
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln		300
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Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln		315
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<211> 723

<212> DNA

<213> Homo sapiens

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 35 40 45
 Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
 50 55 60
 Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
 65 70 75 80
 Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
 85 90 95
 Phe Gln Leu Lys Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
 100 105 110
 Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
 115 120 125
 Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
 130 135 140
 Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
 145 150 155 160
 Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
 165 170 175
 Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
 180 185 190
 Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
 195 200 205
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 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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 Gln Tyr Gly Arg Trp Ala Val Val Ser Gly Ala Thr Asp Gly Ile Gly
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Leu	Gln	Pro	Thr	Pro	Gln	Leu
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Leu	Asp	His	Phe	Ser	Arg	Ala
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Ile	Phe	Val	Gln	Ser	Leu	Xaa
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<211> 4237

<212> DNA

<213> Homo sapiens

<400> 4403

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<211> 779

<212> PRT

<213> Homo sapiens

<400> 4404

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 Gln Pro Glu Trp Gly Met His Gln Gln Pro Pro His Pro Pro Asp
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 Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro
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 Ser Glu Asp Ser Asn Ser Gln Asp Ser Gly Glu Phe Ala Pro Asp Asn
 100 105 110
 Arg His Ile Phe Asn Gln Asn Asn His Asn Phe Gly Gly Pro Pro Asp
 115 120 125
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 130 135 140
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 165 170 175
 Ser Ser Phe Arg Asp Arg Gln Arg Ser Pro Ile Ala Leu Pro Val Lys
 180 185 190
 Gln Glu Pro Pro Gln Ile Asp Ala Val Lys Arg Arg Thr Leu Pro Ala
 195 200 205
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 210 215 220
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 225 230 235 240
 Lys Lys Lys Ala Thr Glu Asp Ala Glu Gly Asp Gly Pro Arg Leu
 245 250 255
 Pro Gln Arg Ser Lys Phe Asp Ser Asp Glu Glu Glu Asp Thr Glu
 260 265 270
 Asn Val Glu Ala Ala Ser Ser Gly Lys Val Thr Arg Ser Pro Ser Pro
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Asp Asp Glu Glu Leu Arg His Arg Ile Arg Gln Lys Glu Ala Phe
385          390          395          400
Trp Arg Lys Glu Lys Glu Gln Gln Leu Leu His Asp Lys Gln Met Glu
          405          410          415
Glu Glu Lys Gln Gln Thr Glu Arg Val Thr Lys Glu Met Asn Glu Phe
          420          425          430
Ile His Lys Glu Gln Asn Ser Leu Ser Leu Leu Glu Ala Arg Glu Ala
          435          440          445
Asp Gly Asp Val Val Asn Glu Lys Lys Arg Thr Pro Asn Glu Thr Thr
          450          455          460
Ser Val Leu Glu Pro Lys Lys Glu His Lys Glu Lys Glu Lys Gln Gly
          465          470          475          480
Arg Ser Arg Ser Gly Ser Ser Ser Ser Gly Ser Ser Ser Ser Asn Ser
          485          490          495
Arg Thr Ser Ser Thr Ser Ser Thr Val Ser Ser Ser Ser Tyr Ser Ser
          500          505          510
Ser Ser Gly Ser Ser Arg Thr Ser Ser Arg Ser Ser Ser Pro Lys Arg
          515          520          525
Lys Lys Arg His Ser Arg Ser Arg Ser Pro Thr Ile Lys Ala Arg Arg
          530          535          540
Ser Arg Ser Arg Ser Tyr Ser Arg Arg Ile Lys Ile Glu Ser Asn Arg
          545          550          555          560
Ala Arg Val Lys Ile Arg Asp Arg Arg Ser Asn Arg Asn Ser Ile
          565          570          575
Glu Arg Glu Arg Arg Arg Asn Arg Ser Pro Ser Arg Glu Arg Arg Arg
          580          585          590
Ser Arg Ser Arg Ser Arg Asp Arg Arg Thr Asn Arg Ala Ser Arg Ser
          595          600          605
Arg Ser Arg Asp Arg Arg Lys Ile Asp Asp Gln Arg Gly Asn Leu Ser
          610          615          620
Gly Asn Ser His Lys His Lys Gly Glu Ala Lys Glu Gln Glu Arg Lys
          625          630          635          640
Lys Glu Arg Ser Arg Ser Ile Asp Lys Asp Arg Lys Lys Lys Asp Lys
          645          650          655
Glu Arg Glu Arg Glu Gln Asp Lys Arg Lys Glu Lys Gln Lys Arg Glu
          660          665          670
Glu Lys Asp Phe Lys Phe Ser Ser Gln Asp Asp Arg Leu Lys Arg Lys
          675          680          685
Arg Glu Ser Glu Arg Thr Phe Ser Arg Ser Gly Ser Ile Ser Val Lys
          690          695          700
Ile Ile Arg His Asp Ser Arg Gln Asp Ser Lys Lys Ser Thr Thr Lys
          705          710          715          720
Asp Ser Lys Lys His Ser Gly Ser Asp Ser Ser Gly Arg Ser Ser Ser
          725          730          735
Glu Ser Pro Gly Ser Ser Lys Glu Lys Lys Ala Lys Lys Pro Lys His
          740          745          750
Ser Arg Ser Arg Ser Val Glu Lys Ser Gln Arg Ser Gly Lys Lys Ala
          755          760          765
Ser Arg Lys His Lys Ser Lys Ser Arg Ser Arg
          770          775

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<210> 4405

<211> 918

<212> DNA
<213> Homo sapiens

<400> 4405
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120
aggaccagat cttttgagag ctgaggggtg agggcattga gccaacacac agatttgctg
180
cctctgtccc cgaagacacc tgcaccctcc atgcggagcc aagatgggga atggaactga
240
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300
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360
gaccatgctg aagccacgat cgtcgtcatg ctcgtgggta acaaaagtga ctcagccag
420
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480
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540
gaaatctttg cgaaggtgtc caagcagaga cagaacagca tccggaccaa tgccatcact
600
ctggggcagt cccaggctgg acaggagcct ggcctggggg agaagagggc ctgtgtcatc
660
agcctctgac cttggccagc accacctgcc cccactggct ttttgggtgc ccttgctccc
720
acttcagccc caggaccttt ccttgccctt tggttccaga tatcagactg ttcctgttc
780
acagcacctc cagggtctta aggtcttcat gccctatcac aaatacctct tttatctgtc
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900
aaaaaaaaaa aaaaaaaaaa
918

<210> 4406
<211> 138
<212> PRT
<213> Homo sapiens

<400> 4406
Leu Cys Leu Gln Gly Tyr Tyr Arg Gly Ala Val Gly Ala Leu Leu Val
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Phe Asp Leu Thr Lys His Gln Thr Tyr Ala Val Val Glu Arg Trp Leu
20 25 30
Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
35 40 45
Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
50 55 60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
65 70 75 80
Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

	85		90		95
Glu Ile Phe Ala Lys Val Ser Lys Gln Arg Gln Asn Ser Ile Arg Thr					
	100		105		110
Asn Ala Ile Thr Leu Gly Ser Ala Gln Ala Gly Gln Glu Pro Gly Pro					
	115		120		125
Gly Glu Lys Arg Ala Cys Cys Ile Ser Leu					
	130		135		

<210> 4407

<211> 974

<212> DNA

<213> Homo sapiens

<400> 4407

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120
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180
gtcaaaagaa taccttttga agatagggga tcacccattt atacctctaa atgttaacct
240
caatgcacat ttggaggat atttgcaaga ttattatttc atttgatgtt ttcttaaagg
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atgtttgatg taggtggaca gagatctgag agaaagaagt ggattcactg ctttgaagga
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420
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480
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540
gtaaccaagg tgcattctag tatctgcttt ccagaatata ctgggccaac tacatttgaa
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720
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974

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<210> 4408

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4408

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Arg Met Phe Asp Val Gly Gly Gln Arg Ser Glu Arg Lys Lys Trp Ile
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His Cys Phe Glu Gly Val Thr Cys Ile Ile Phe Cys Ala Ala Leu Ser
           20           25           30
Ala Tyr Asp Met Val Leu Val Glu Asp Glu Glu Val Asn Arg Met His
           35           40           45
Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
           50           55           60
Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
           65           70           75           80
Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
           85           90           95
Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
           100          105          110
Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
           115          120          125
Cys Ala Thr Asp Thr Gln Asn Val Lys Phe Val Phe Asp Ala Val Thr
           130          135          140
Asp Ile Ile Ile Lys Glu Asn Leu Lys Asp Cys Gly Leu Phe
           145          150          155

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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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120
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780

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 4200
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 4217

<210> 4410
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 4410
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 Gln Gly Pro Arg Gly Ser Arg Ser Ser Arg Ala Asp Pro Pro Pro His
 20 25 30
 Ser His Met Ala Thr Arg Ser Arg Glu Asn Ala Arg Arg Gly Thr
 35 40 45
 Pro Glu Pro Glu Glu Ala Gly Arg Arg Gly Gly Lys Arg Pro Lys Pro
 50 55 60
 Pro Pro Gly Val Ala Ser Ala Ser Ala Arg Gly Pro Pro Ala Thr Asp
 65 70 75 80
 Gly Leu Gly Ala Lys Val Lys Leu Glu Glu Lys Gln His His Pro Cys
 85 90 95
 Gln Lys Cys Pro Arg Val Phe Asn Asn Arg Trp Tyr Leu Glu Lys His
 100 105 110
 Met Asn Val Thr His Ser Arg Met Gln Ile Cys Asp Gln Cys Gly Lys
 115 120 125
 Arg Phe Leu Leu Glu Ser Glu Leu Leu His Arg Gln Thr Asp Cys
 130 135 140
 Glu Arg Asn Ile Gln Cys Val Thr Cys Gly Lys Ala Phe Lys Lys Leu
 145 150 155 160
 Trp Ser Leu His Glu His Asn Lys Ile Val His Gly Tyr Ala Glu Lys
 165 170 175
 Lys Phe Ser Cys Glu Ile Cys Glu Lys Lys Phe Tyr Thr Met Ala His
 180 185 190
 Val Arg Lys His Met Val Ala His Thr Lys Asp Met Pro Phe Thr Cys
 195 200 205
 Glu Thr Cys Gly Lys Ser Phe Lys Arg Ser Met Ser Leu Lys Val His
 210 215 220
 Ser Leu Gln His Ser Gly Glu Lys Pro Phe Arg Cys Glu Asn Cys Asp
 225 230 235 240
 Glu Arg Phe Gln Tyr Lys Tyr Gln Leu Arg Ser His Met Ser Ile His
 245 250 255
 Ile Gly His Lys Gln Phe Met Cys Gln Trp Cys Gly Lys Asp Phe Asn
 260 265 270
 Met Lys Gln Tyr Phe Asp Glu His Met Lys Thr His Thr Gly Glu Lys
 275 280 285
 Pro Phe Ile Cys Glu Ile Cys Gly Lys Ser Phe Thr Ser Arg Pro Asn
 290 295 300
 Met Lys Arg His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Pro Cys

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305          310          315          320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Pro Gln Thr Leu Pro Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385          390          395          400
Met Asn Ala Asn Asn
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<210> 4411

<211> 484

<212> DNA

<213> Homo sapiens

<400> 4411

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120
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180
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300
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atcc
484

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<210> 4412

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4412

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Met Val Gln Gly Gln Leu Tyr Ala Ser Pro Gln Met Leu Leu Ser Ser
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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65					70					75				80
Ala	Pro	Ala	Ser	Arg	Gln	Arg	Val	Gly	Phe	Leu	Gly	Gln	Pro	Gln
					85				90				95	
Cys	Gln	Arg	Gln	His	Val	Ser	Leu	His	Arg	Ser	His	Gln	Ala	Pro
			100					105				110		Leu

Asp

<210> 4413
 <211> 1097
 <212> DNA
 <213> Homo sapiens

<400> 4413
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 120
 agcagcctgg cactcttcag agatgatacg ggtgtcaaat atggcttggt gggattggag
 180
 cccaccaagg tgccttgaat ttggagcgct tccgggagtt ggcagggtgct ggcagacaca
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 900
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 1097

<210> 4414

<211> 65
 <212> PRT
 <213> Homo sapiens

<400> 4414
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 Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
 35 40 45
 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
 50 55 60
 Pro
 65

<210> 4415
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4415
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 tccagcagaa agagacaaaag atctttgttc aaaatattct gaaaaaggta aactaactgc
 120
 attattgaat acacaaaagg aatgttaccc ttactgtgtc atagtcaaa gtgaagttaa
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 aaaaaaaagg aagttaaata actgaagtaa tgggttgcgc aaatagcaaa cgtaggatac
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<210> 4416
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4416

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Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
      20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50           55           60
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Val Gly Val Ile
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<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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<211> 263
<212> FRT
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35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
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65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
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Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
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Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
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Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
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<213> Homo sapiens

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<211> 91

<212> PRT

<213> Homo sapiens

<400> 4420

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Trp	Cys	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gln	Leu	Lys	Gln
		35					40					45			
Leu	Ser	Cys	Pro	Ser	His	Pro	Ser	Xaa	Asn	Tyr	Arg	Pro	Val	Pro	Pro
		50				55					60				
His	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr
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<210> 4421

<211> 1356

<212> DNA

<213> Homo sapiens

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<210> 4423
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<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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 Lys Ala Leu Gly Lys Asn Arg Ser Ala Asp Phe Asn Pro Asp Phe Val
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 Phe Thr Glu Lys Glu Gly Thr Tyr Asp Gly Ser Trp Ala Leu Ala Asp
 65 70 75 80
 Val Met Ser Gln Leu Lys Lys Lys Arg Ala Ala Thr Thr Leu Asp Glu
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 Lys Ile Glu Lys Val Arg Lys Lys Arg Lys Thr Glu Asp Lys Glu Ala
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 Lys Ser Gly Lys Leu Glu Lys Glu Lys Glu Ala Lys Glu Gly Ser Glu

115 120 125
 Pro Arg Glu Gln Glu Asp Leu Gln Glu Asn Asp Glu Glu Gly Ser Glu
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 Asp Glu Ala Ser Glu Thr Asp Tyr Ser Ser Ala Asp Glu Asn Ile Leu
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 Thr Lys Ala Asp Thr Leu Lys Val Lys Asp Arg Lys Lys Lys Lys Lys
 165 170 175
 Lys Gly Gln Glu Ala Gly Gly Phe Phe Glu Asp Ala Ser Gln Tyr Asp
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 Cys Ile Pro Val Gly Leu Leu Gly Lys Asp Ile Cys Ala Cys Ala Ala
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Thr Ala Lys Arg Leu Leu Glu Lys Gly Lys Glu Ala Val Val Gln Glu
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Glu Arg Leu Ala Lys Arg Asn Arg Arg Ala Lys Arg Ala Arg Ala Met
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<213> Homo sapiens

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Ser Tyr Leu	Cys Ser Asp	Val Thr Ser Val Pro Ser	Lys Glu Ser Leu
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Ala Leu Arg	Lys Ala Ala	Ser Glu Thr Thr Ser Glu	Gly Leu Ser
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<212> DNA

<213> Homo sapiens

<400> 4427

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